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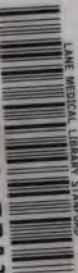
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THE DIET CURE.

DR. T. L. NICHOLS.

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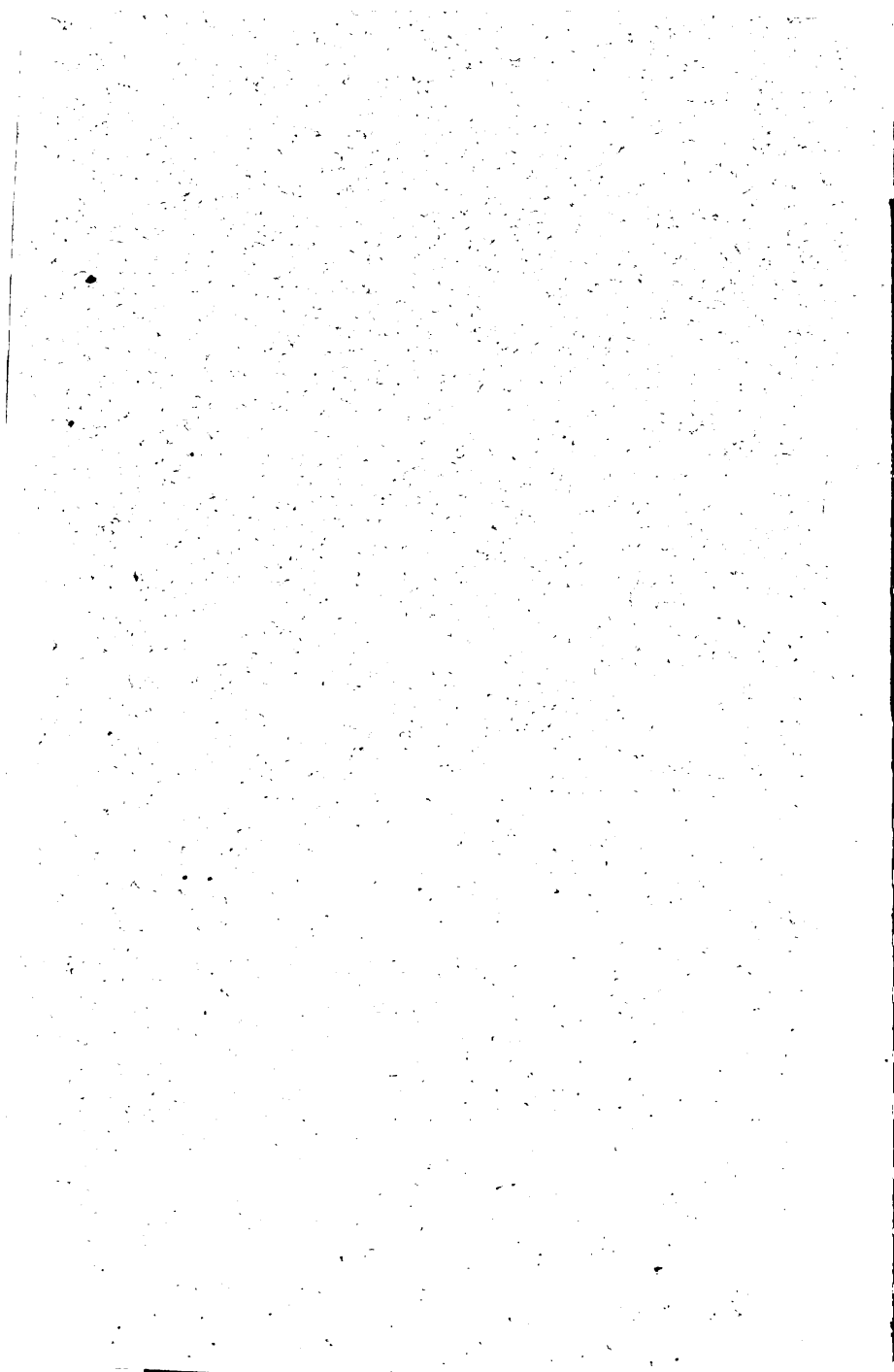
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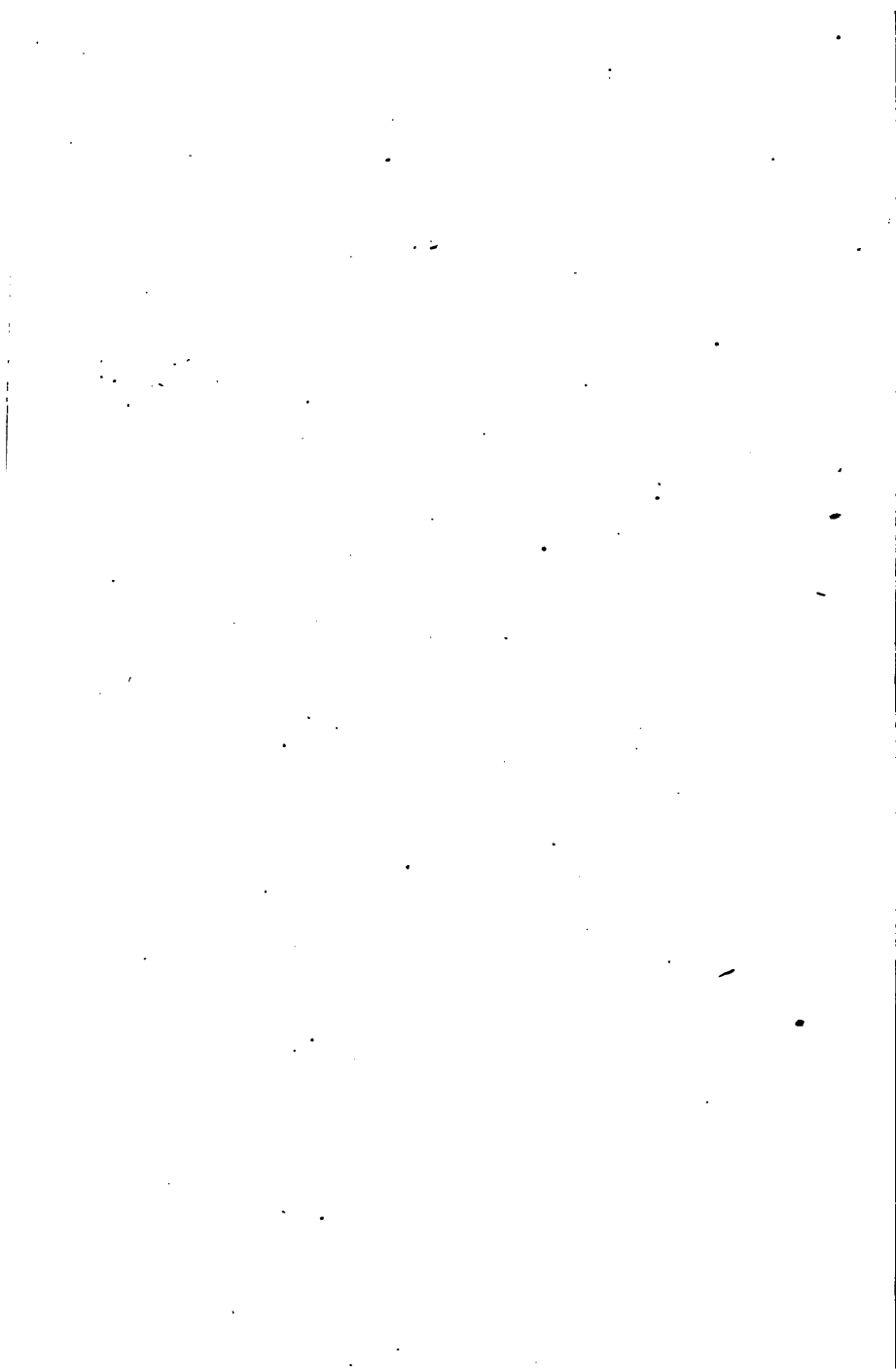


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EATING TO LIVE.

THE DIET CURE:

AN ESSAY ON

THE RELATIONS OF FOOD AND DRINK

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HEALTH, DISEASE AND CURE.

BY T. L. NICHOLS, M.D.,

Author of "How to Live on Sixpence a-Day," "How to Cook," "Etiologic
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The deadly sins of Gluttony and Drunkenness are denounced from every pulpit—or ought to be. Every man of science and of sense knows perfectly well that the abuse of food and drink is the cause of a large part of the disease and misery of this world; yet their amount is not much lessened. The death-rate of England is fully double what it might be; and preventable death is one of two things—homicide or suicide.

Murder implies malice-aforethought; but wilful negligence is nearly as bad. I write my books that I may not be answerable for the lives I may prolong. In round numbers, 500,000 people die every year in England and Wales. The number ought not to be above, and might be below, 300,000. I have written this book, and all my books on Sanitary and Social Science, to clear myself of any share I might have of responsibility for this needless, superfluous mortality. That it may do all the good it can, I issue it in a form and at a price which will, I trust, enable it to do the greatest good to the greatest number.

It cannot give me literary reputation; it cannot bring me professional emoluments; but if it accomplish its sole object, to enable people to get well and keep well, I shall be more than content.

T. L. NICHOLS, M.D.

32 Fopstone Road, Earls Court,
Kensington, S.W.



oak grows from a rock where its roots can reach no soil. The willow flourishes in sand if it have but water. Many plants live wholly upon air. The Canary bird lives best upon its canary seed; the parrot cares only for maize. The monkey revels on fruits and nuts. Horses, cattle, deer, and sheep, flourish in perfect health on grass, from which they draw strength, beauty, and the perfection of their life.

When our domestic animals become diseased from unnatural modes of feeding, what is the proper cure? The usual one is to send for a veterinary surgeon, and have them bled and blistered and drugged. The natural method is to turn them out to grass, and let nature cure them in her own way of the effects of artificial and depraving conditions. To keep well, or to get well, a horse needs only pure air, pure water, and a good pasture. To keep well, or to get well, a man needs precisely similar conditions—the air, water, and food best adapted to build up and sustain his daily life.

CHAPTER II.

FOOD.

LET us consider this matter of diet, or food, beginning with the lower forms of life in the vegetable kingdom.

Vegetables, like animals, have life. They grow from germs. These germs are inconceivably minute; but each has its own individuality and power. From the microscopic fungus to the oak or pine of many centuries, each germ develops its own peculiar life by the absorption of matter from which its tissues and organs, and new germs, are formed.

The added matter of vegetable growth comes from the soil, from water, from the air. Earth, water, and air, are therefore food for plants. And in the soil which sustains vegetation, we have decayed vegetable and animal matter, which may be used over and over again in the processes of life. Thus animals live on vegetables, and vegetables on animals. It is said that the vegetable kingdom rests on the mineral, and the animal upon the vegetable. Primarily, vegetables grow by matter from earth and air; but some vegetables feed partly upon insects and upon substances used as manures. All animals may be said to feed upon vegetables; but some take the vegetable

matter at second hand. Cattle and sheep live on grass ; but wolves, tigers, and sometimes men, live on cattle and sheep.

Each plant and each animal lives its best life—the life of health—on its own natural food. The turkey buzzard cannot live on grass, nor the sheep on carrion.

Plants live very largely, and some entirely, upon air, and what the air contains. What are called air-plants attach themselves to wood or bark, or a naked rock, and flourish, absorbing moisture from the air, and appropriating the carbon contained in the carbonic acid always present in the atmosphere.

Many years ago, a French chemist tried this experiment. He washed some sand very clean, dried it, and carefully weighed it. In it he placed a willow twig, weighed also, which he watered with distilled, and therefore perfectly pure water. The willow-twig grew to be a tree. Its root, trunk, branches, bark, and leaves were reduced to charcoal, and this weight of charcoal was the carbon it had gathered from the carbonic acid gas in the atmosphere. The millions of tons of carbon in the forests of the world, and the far greater quantity stored up in the coal measures scattered over the earth, are composed of carbon gathered by the leaves of vegetables from the air, and fixed by the chemical force of sunshine. Carbonic acid is therefore the principal food of plants. They gather their hydrogen and nitrogen from air or earth. Plants grow in water, because all water is full of air. Fishes breathe the air in water, and give to it carbonic acid, as animals do to air. Animals absorb what plants supply—plants absorb what animals supply. They live upon each other. Plants and fish flourish together in your aquarium, because the plant supplies oxygen to the fish, and the fish supplies carbonic acid for the plant.

We live on air ; it is our first necessary of life. We eat from time to time, and we can live for many days without our usual food—for weeks, in some cases—but we must breathe night and day. The blood demands its constant supply of oxygen. Without this supply, it grows dark, and becomes foul. If the air contains foul gases, we must inhale, and, more or less, absorb them. They may poison the blood, and thereby the whole body. Pure air, such as we get on the mountains, on great plains, and by or on the sea, we feel to be invigorating and full of life. The air of narrow streets, darkened courts, filthy places, crowded rooms, unventilated bed-rooms, dwellings, theatres, churches, schools, hospitals or prisons, we find to be depressing, weakening, diseasing, and full of death. We live on good

air; we die of bad air; and as, in a certain and important sense, animals and vegetables live on air, we cannot exclude it from our considerations of Diet, and the Diet Cure.

CHAPTER III.

WATER.

DRINK, of course, belongs to diet, and the liquid portion of our food is a matter of great importance. If we are poisoned with the air, or the filthy gases it often contains, we may also be poisoned by the matters contained in the liquids we drink.

An average man weighs 150 pounds. Of this weight, 130 pounds at least is water. A man contains over 16 gallons of water. This is quite within bounds, for the solid matter of the human body, perfectly dried, really weighs about 12 pounds. All the rest is water. Blood, brain, nerves, mucous, serum are 95 per cent, or more, water; muscle, 75 or 80 per cent.; bone itself has a large percentage of water.

The food we eat is also largely composed of water. Milk, on which all the young mammalia are nourished and built up, contains about the same proportion of water as the blood from which it is formed, and into which it is again transformed. Beat up the white and yolk of an egg—you see how liquid they are, and how large a proportion of water they must contain; yet from this matter is formed the entire chicken as it comes from the shell—bones, muscles, brain, nerves, skin, feathers—quite a perfect little creature, ready to run about and pick up its living.

Milk and eggs are types of perfect food, because, being formed of blood, they readily make blood, and hold all it contains of matter to build up the body.

Fruits and vegetables contain 70 per cent. or more of water. Even what we call dry bread contains a considerable proportion of water, as we can see by weighing it and then *perfectly* drying it, and finding how much it has lost.

The water contained in fruits and vegetables is soft and pure. Nature takes care of that. The water dissolved in the atmosphere, which we see condensed in mist, fog, and clouds, and which comes down in rain, is distilled water rising from earth and sea, perfectly soft and pure. But the air contains

dust, vegetable fibres, animal particles, spores, germs, smoke, and poisonous gases of various kinds. A London fog, for instance, is sensibly pervaded with the qualities of London smoke and London air. The rain that falls through such an atmosphere purifies it, washes it clean; but becomes thereby itself more or less impure, and needs to be well filtered before it is fit for use.

By nature's method the rainfall is filtered by the carbon of vegetable mould and the sand and gravel through which it sinks to form springs. If this sand or other earthy matter is insoluble, the water is soft and pure, like that of the Malvern hills. If water percolates through limestone or chalk, it dissolves a portion of the lime, and becomes hard.

If our houses were built with gently sloping roofs, and the tiles, slate, or concrete covering had upon it a layer of gravel, then sand, then loam and turf, the whole rainfall would be filtered, and might be stored in a cistern for use. This would be an imitation of nature, and give a good supply of pure, soft water. Artificial springs might be similarly constructed upon any piece of sloping ground.

The water supply of London and of many large towns is very bad. The rivers which supply the metropolis of England with water are the open sewers of millions of people, with local drainage, and the wash of countless factories, farm-yards, stables, slaughter-houses, etc. This water is often reported to be full of organic matter. It is believed to be a vehicle for germs of various diseases.

Considering that water, taken into the stomach, is quickly absorbed into the current of the blood and circulated over the whole body, its purity and its freedom from any kind of diseasing matter must be a thing of vital importance.

Pure, soft spring water, where it can be procured, is very favourable to health. The Malvern springs, which are almost chemically pure, have been renowned for ages for their sanitary virtues. The chief of them are "the Holy Well," bottled by Messrs Burrow, and sent over the kingdom; "St. Ann's Well," close to Aldwyn Tower; and the Haywell—supposed to be a corruption of "Eye Well"—which supplies one of the public baths. But all the water from the Malvern hills—pure, filtered rain water, is of nearly the same quality.

What we want of water is that it should be pure, and so fitted to dissolve all matters of nutrition and keep the blood at its proper standard. Thirst warns us that the blood is too

thick, or that it contains some acrid matter that needs to be washed away. Thus, salt food makes us thirsty. When we perspire freely, we may need water to dilute the blood and supply the loss by perspiration.

Water is the *only* drink. Whatever is mixed with water is food, or flavour, or poison—something which is not drink. Milk is water and food. Wine is water and alcohol, with small proportions of sugar, acids, and flavouring matters. Tea and coffee are watery infusions of leaves and berries containing narcotic stimulants. Of all these, the one element we need to dissolve our food and give fluidity to our blood is water, and the more pure and perfect that element is the better.

If we have an abundance of juicy fruits, like pears, apples, melons, oranges, or grapes, we might never need to drink. Even watery vegetables, like beets, turnips, etc., are largely composed of water. But if we require water, and cannot get it soft and pure, it would be well worth the trouble to have a still and use only distilled water.* Dr. Lambe drank distilled water for many years, and prescribed it to his patients. His testimony to its purifying, and therefore curative properties, is very strong. He says it dissolved stone and gravel, and that, with a pure diet, it cured cancer and other malignant diseases.

CHAPTER IV.

OF THE BLOOD.

Now, let us come to the matter of food, commonly so called.

"The blood is the life," and the blood is made of the food. As is the food; so is the blood. Pure food makes pure blood; pure blood builds up a healthy body. The vital character of the blood is very strongly asserted in the Scriptures, and confirmed by the researches of Harvey, Hunter, and the best physiologists.

"But flesh with the life thereof, which is the blood thereof, shall ye not eat" (Gen. ix. 4).

"For the life of the flesh is in the blood." "For it is the life of all flesh; the blood of it is for the life thereof; therefore,

* Dr. Nichols has invented a self-supplying still, which, with a jet of gas, or a spirit or petroleum lamp, will supply a stream of pure water night and day for any length of time.

I said unto the children of Israel, Ye shall eat the blood of no manner of flesh, for the life of all flesh is the blood thereof" (Lev. xvii. 11-14).

Let us begin at the beginning. The very germs of all animals are made from the blood of those animals, and the blood from their food. Germ cells and sperm cells, in the female and male, are made of the elements supplied by food. When these elements unite to form the living being, it is built up by matter elaborated from food. In the seeds of plants this matter is stored around the perfect germ; it fills the shells of eggs for the formation of the bird; while the mammalian fœtus is nourished directly by the blood of the mother.

We can see how important must be the daily food of the mother, which makes the blood from which the germ is made, and by which it is nourished until the period of birth.

The constitution of the child comes from its father and mother, and in some degree also from its more remote progenitors. From conception to birth, it is the food of the mother that nourishes and builds up the child. In the natural order, for about a year the food of the mother, converted into her blood and then into her milk, still nourishes the body of the child.

Is it possible to exaggerate the importance of a pure, healthy, natural diet for the mother, through all this period, to the health of her child?

Now, the statistics of mortality prove that from twenty-five to fifty children of every hundred born die in infancy. In some places and in some classes the mortality is much greater than in others. If we put the average at one-third—say that one in every three children born dies before it is five years old, we shall not be far from the truth. And this mortality depends more upon diet than any other cause. Considering air as food, diet covers nearly the whole ground of the causes of this terrible premature mortality.

When the child no longer depends upon mother or nurse for food, it has yet to get its growth, and then supply the daily waste of nervous and muscular action.

The matter of the body changes from hour to hour. At every breath we give out matter which comes from the most distant portions of the body. The myriad pores of the skin are constantly throwing out this matter. It gathers upon the cuticle; it fills and fouls our clothing, it loads the air of unventilated rooms. The excretions of the human body by lungs

and skin make the crowd poison of typhus. Other waste matter of brain and muscle passes off by the kidneys and bowels; and the free action of these outlets to the system is necessary to its purity, which is but another name for health.

Until we get our growth, food is needed to supply new matter, both to replace this daily waste and also for the enlargement of the body. When growth is ended, we need only to supply our daily waste. Hour by hour the blood is circulating through all parts of the body, carrying the matter of nutriment to every part; carrying away also all waste, foul, and diseasing matters, to be expelled from the body.

The question is, therefore, what kind of food is best, and what quantity is needful to build up the body and renew it from day to day? what kind and quantity of food will keep the body in health, and what kind and quantity are best for the cure of disease?

This is the important problem we have to solve.

CHAPTER V.

THE NATURAL FOOD OF MAN.

"Follow Nature." That is the simple rule of health. Every creature upon the earth has its own natural food. The teeth, the claws, the stomach and intestines of the tiger show that its food is flesh. The horse is as evidently adapted to grass and the seeds of grasses. The hand and the teeth of the monkey show that it should live on fruit. The natural food of every creature is that which keeps it in health. Horses would not do well on flesh nor tigers on herbage. Swine can live on both flesh and fruit.

Man is above all animals in intellectual and moral development, but he is still an animal as to his physical organisation and wants. In his structure he pretty closely resembles the fruit-eating animals. He has hands for plucking fruits; front teeth for biting them; back teeth for mashing them; a stomach and very long intestinal canal for digesting them. The tastes and the general habits of mankind show that fruits and the seeds of plants are his natural food. Man can live very perfectly and delightfully on apples, bananas, dates, figs, olives, grapes, melons, nuts. He makes bread, or the equivalents of

bread, of wheat, rye, oats, barley, maize, rice, millet, lentils, peas, beans. He eats cabbages, onions, lettuces, turnips, raw or cooked, and he cooks and eats potatoes, yams, beets, carrots, parsnips, etc., etc.

Furthermore, keeping flocks and herds, man has learned to subsist upon the milk of cows, goats, sheep, camels, mares, asses, or the butter and cheese of such milk, and the eggs of various fowls. Driven by hunger he has also learned to eat fish, flesh, and fowls—a great variety of animal substances, prepared by cookery.

There is no question of the capability of man to subsist upon a great variety of food. Even the lower animals have a measure of such adaptability. Cows learn to live on fish. Dogs can subsist on a vegetable diet, and are of gentler manners thereby. Monkeys can be trained to eat and drink like men.

The question is not what variations and modifications are possible, but what kinds of food are most natural, and therefore most healthful. For, it must never be forgotten, that as we depart from what is natural, we also depart from what is healthful.

Let us imagine man placed upon this planet, fresh from the hand of the Creator: what would he eat? Precisely that for which he was adapted. He would smell, pick, eat the strawberry, the plum, the peach, the apple, the orange, the banana, the fig, the date, the clusters of ripe grapes. To these he would add all kinds of sweet nuts, and for variety, or pressed by hunger, he would eat tender leaves, as of lettuce and cabbage, and roots, as turnips or onions.

If you adopt the theory of development, or gradually progressive creation, you arrive at precisely the same result. The higher orders of the monkey tribes, the orang, chimpanzee, and gorilla, are frugivorous. They live in trees; their hands are made to pluck fruits, their teeth to mash them, their stomachs to digest them, and they are sustained by them in perfect health and wonderful activity and fulness of life.

In "Human Physiology, the Basis of Sanitary and Social Science," I have tried to illustrate the obvious and necessary fact that the true character, habits, position, and destiny of every creature is determined by and shown in its organisation. No naturalist, no anatomist, no physiologist, examining man, and comparing him with other animals, would pronounce him other than a fruit eating animal—of course including nuts and seeds under the general designation of fruit.

Man as naturally eats, and lives, and thrives upon, fruit and seeds, or the bread he can make from them, as the horse or sheep upon grass, or the lion and tiger upon the dead carcasses of the animals they are fitted to catch, tear, and devour.

Man, in the exercise of his intellectual and inventive faculties, has, no doubt, a great power of adapting himself to his condition. Thrown upon a barren island, he can subsist upon oysters, mussels, clams, shrimps, crabs, lobsters, and such fish as he can catch, eat raw, or cook in the sun or by a fire. In a forest or on a prairie, failing fruit, he would imitate the animals around him, eating first the eggs of birds, and then the birds themselves, and then any small animals he could catch. When he had tamed animals, he would live upon their milk, and would not be long in finding butter and cheese.

In the same way, man, whose proper drink is water, might readily substitute for it the juices of fruits. These, if kept a certain time, would become wine. Beer would follow wine. The uses or abuses of tobacco, opium, hasheesh, tea, coffee, etc., were, no doubt, the result of accidental discoveries of their several properties. The preparation of flesh by cookery may well have come of the accidental roasting of some domestic animal, or from the accidental roasting of fruits, tubers, or parching of seeds, after man had made the conquest of fire.

But, it will be said, since man had the power to take, prepare, and eat fish, flesh, and fowl, is it not evident that he was intended to do it, and ought to do it. Since he can, with the aid of cookery, be as omnivorous as the pig, ought he not to be? Is it not what nature intended?

The argument goes too far, and proves too much. It is not what man can do, but what he ought to do. The cows on Cape Cod eat the refuse of the fish. Monkeys can be taught to smoke tobacco. We have heard of a horse having been fed on beef-steaks. Will any one pretend that such things are natural? or that they are likely to be healthful?

Man has the power to lie, steal, kill; to commit every sort of crime and atrocity. Drinking alcohol is rather more natural, one would say, than eating the dead body of an animal. We know that tribes of men have eagerly devoured human flesh, but no one will pretend that men ought, in any sense, to devour each other. Under the horrible pressure of hunger, even civilised men have eaten their comrades to preserve life.

When told that eating flesh is not natural to man, and therefore not healthful, people ask,—“But what shall we do with

all these animals if we do not eat them?" Of course this question applies to horses and donkeys, dogs, cats, and rats, quite as much as to sheep and cattle. Buzzards and crows eat carrion, and men who like their game "high" follow their example. But devouring the corpses of dead animals, in whatever condition, is not the highest, purest, most natural, and therefore most healthful diet for man. Man is at his best when he eats the food best adapted for his nourishment. Just as he departs from that he drifts away from the standard of health. Every variation brings with it some derangement or disorder of life. Unnatural food is difficult of digestion, and he has dyspepsia. Then come inflammations and congestions. The bowels are disordered with constipation or overaction. The effort to free the system from too great a quantity of food, or some irritating quality it contains, produces fevers. Coarse and fatty animal food disturbs the liver and kidneys. The skin cannot throw off the superfluous matter. "Riotous eaters of flesh" have gout, and are liable to apoplexy. The impure blood made of unnatural and often diseased food, produces scurvy, scrofula, tubercular diseases, consumption, leprosy, cancer. In a word, there is not one of the diseases that afflict and destroy humanity, which may not be produced by an unnatural diet. It is what we take into our bodies, the bad air we breathe, the bad food we eat, the foul water or exciting and intoxicating beverages we drink, that fill us with disease, cloud our intellects, inflame our passions, and shorten our lives. We deform the beautiful world; we fill it with disease and pain, with vice and crime, with needless misery and premature mortality. We kill ourselves by our vices, and, as if that were not enough, we slaughter each other in wars, whose horrors and atrocities are the aggravation and intensification of the horrors and atrocities of what we look upon as our peaceful and normal condition.

I have no doubt about the natural food of man.* Fruit, and seeds, and nuts, which are but larger seeds, contain all that man requires. Millions of men live almost entirely on rice; millions live on oatmeal, or barley, or rye; millions on maize, or wheat; millions on dates, or bananas, or breadfruit. Grapes, figs, apples, contain abundant, healthful, delicious nutriment. The hardy Spanish peasant is strong and happy on bread, onions, olives, and grapes. The Italian fares sumptuously on maccaroni, polenta (maize pudding), olives, and other fruits. The chief food of multitudes of people in France is chesnuts. The brave,

strong Turks are happy on dry bread and figs or grapes. From the Straits of Gibraltar along both coasts of the Mediterranean, and so on to India, the body of the people, physically some of the finest that live upon the earth, eat little or no flesh. The consumption of flesh for food in Spain is said to average but two pounds a-head per annum. Deduct the consumption of the upper classes, who can afford luxuries, and you see how very small must be that of the great mass of the people, who, so far from being starved, are among the best conditioned in Europe. Poverty, as we see it in England, is scarcely known. In Italy flesh meat is used but little more than in Spain, and chiefly by the wealthy classes and visitors. We know that for centuries millions of the finest races in India have entirely abstained from flesh for food.

But we need not leave our own islands for proof that men can be healthy, strong, and well developed in body and mind, without eating flesh. Millions of Scotchmen have grown strong, hardy, and intellectual, on oatmeal. The Scottish student who carried to the university a sack of oatmeal, on which he lived, studied quite as well as the English student on his steaks and chops. One may doubt if the world can show a finer body of men or women than could be selected from the west of Ireland, where they were brought up on potatoes and buttermilk, with a short supply of either bread or oatmeal. And how much meat has ever entered into the habitual diet of the agricultural labourers of England, where their wages have ranged from 9s. to 12s. a-week?

CHAPTER VI.

DISEASE.

THE natural condition of man is one of health, long life, and great enjoyment. He should make the earth a beautiful garden and live upon its fruits. England might be covered all over with orchards and fields of corn. Hardy varieties of the grape would ripen on the southern slopes of hills; and the country, well cultivated, would feed at least three times its actual population. The land necessary to feed one thousand men on the flesh of cattle and sheep, will feed ten thousand men with grain and fruits. The land and labour now wasted in growing grain and hops for distillers and brewers to convert

into alcoholic drinks, would provide healthy food for an immense population. If fruit-bearing trees and shrubs replaced those which are simply ornamental in every landscape, we should have an abundance of the most healthful kinds of food. And what more beautiful than a country covered all over with blossoms of cherry, plum, pear, and apple, in the spring, and filled with the glory and fragrance of these ripening fruits through summer and autumn? Millions of cottages might fill this beautiful land with the hum of bees; cows, goats, and sheep **could** provide us with milk; we need not import our eggs from the continent. If more animalised matter were needful, the sea and rivers would yield an abundant supply in some of its least objectionable forms.

The actual state of man is one of discomfort, disorder, toil, hardship, privation, disease, pain, misery, and premature mortality. The average life of man should be at least seventy years; it is less than half. The average life of the most fortunate classes, those placed in the best conditions for health and longevity, may be sixty years; while that of great masses of the people of this country, whose people believe themselves to be enjoying the highest civilisation in the world, is from twenty-five to thirty years.

Before we can properly consider the question of cure we must look at disease, and the causes of disease.

Disease is any variation from the standard of health. Disease is an effort of nature to overcome or cast out of the body some impurity, or some poison, which interferes with the functions of life. Disease is the result of any depravation of the blood. If the blood is wrong, the nerves, muscles, all the organs it nourishes must be wrong also.

If we eat bad food, we make bad blood. If we breathe impure air, the blood absorbs its impurities. If we drink foul or poisoned liquids, they go into the current of the blood and foul and poison it. Such blood cannot make good bone, good muscle, good brain and nerve matter. Nerves made of impure blood cannot carry on the functions of the body with healthful energy. The glands of purification in the skin, lungs, kidneys, intestines, act feebly and imperfectly. The blood, therefore, becomes more impure, the body more and more clogged with its waste matter, which becomes matter of disease. A body in this condition cannot resist, and is ready to receive, the germs of any kind of contagion. The pure, strong body resists all diseasing influences.

Plague, cholera, smallpox, scarlatina, typhus, become epidemic—rage, it is said, in populous places, but there are many who recover, and many do not suffer from the disease. It attacks only those whose bodies are in a condition to receive it. The germs of disease, if there be germs, must have something to lay hold of. We know the quarters of every town where epidemics find victims, and we know the kind of people who sicken and die of such diseases.

Dr. Playfair was not far wrong when he said that the one condition of health was cleanliness—pure air to breathe, pure food to eat, pure water to drink; and that the one cause of disease was filth. For mental and moral causes of disease act through the physical. We say “a sound mind in a sound body,” but it is not clear that there is ever an unsound mind unless the body is first unsound.

And of all causes of disease, far the most potent are those connected with our unnatural habits of eating and drinking. Proverbially, we “dig our graves with our teeth.” It is not often that one hears a sermon against gluttony, though it is classed as a deadly sin. We hear more of drunkenness, though it may be less destructive of health and life.

Let us look a moment at the habits of people as to eating and drinking.

For breakfast—tea or coffee, bacon, ham, eggs, toast, rolls. For luncheon—beef, mutton, chicken, bread, wine, beer. For dinner—soup, fish, beef, mutton, poultry, potatoes, puddings, tarts, salad, cheese, fruit, ale, wine, coffee. Tea—bread, butter, sweetmeats. Supper—nearly a repetition of dinner. Tea may precede dinner or follow it, or both. In any case here are five meals a-day; with many things to excite and disorder the nerves; greasy food to derange the liver; mixtures which few stomachs can well digest; much that is unnatural, a temptation to excess, a heavy draft upon the nervous power that must dissolve and dispose of such heterogeneous mixtures.

People of more simple lives may not eat so often, perhaps not so much; but they err in quality if not in quantity. The bakers' white bread, which is the staple food of multitudes, is deprived of the finest elements of wheat, and tends to constipation. The cheaper kinds of flesh, and especially the flesh of swine, are coarse, unhealthy food; and the potatoes and other vegetables are sometimes in bad condition, often badly cooked. Tea, beer, spirits, tobacco, make up the ordinary diet of great masses of people.

It is no wonder that they are badly nourished, pale, sickly, bilious, dyspeptic, consumptive. Such a diet itself creates many diseases, and it makes people liable to many more.

Any diet which produces constipation throws additional work upon certain organs, and tends to fill the body with poisoning impurities. A bad breath, a dirty skin, catarrh, disease of the kidneys, all sorts of derangements may come of constipation, which is directly caused by an unnatural diet.

When the matters which should be cast out of the body are retained to poison the blood, every kind of acute or chronic disease is of easy production. Men may be poisoned to death by bad air. Thousands are poisoned to death by bad food.

And though it is not true that quantity is more important than quality, it is true that a single ounce of food more than is needed is a tax upon the vital force. Enough is enough. Enough is much better than a feast. All the strength expended in the digestion and disposal of unnecessary food is a wicked waste of food and force. When such waste goes on day after day, we cannot wonder that the brain and whole nervous system should fail, and the body become filled with those impurities which cause the most serious and fatal diseases.

CHAPTER VII.

PREVENTION AND CURE.

SUCH being the nature and causes of our diseases, what are the natural and evident methods of prevention and cure?

What is natural or evident, or evidently natural, does not need much argument. If a man cannot see that two and two make four, we need not waste our words. The rule of life is, "Cease to do evil; learn to do well."

If fire burns us, we keep out of the fire. If poison hurts, we refrain from poison—that is, we should do so, if we were quite reasonable beings.

As it is, knowing that certain drinks intoxicate, we drink; and knowing that certain foods are causes of disease, we eat them notwithstanding. We gratify our appetites and passions with little regard to the consequences.

But men who are wise will avoid the causes of disease, and avail themselves of the means of cure. If excess of any kind

has been a cause of disease, the ready means of cure is temperance or abstinence—temperance in what is needful ; abstinence from what is useless and harmful.

Gluttony is a sin, because it is a waste of life, a cause of disease, a mode of suicide. The simple remedy for all the diseases of gluttony is temperance.

Drunkenness leads straight to death. The remedy is temperance—or, if temperance be difficult, total abstinence, which is safe and sure.

All this is like saying over and over again, two and two make four : the three angles of every triangle are equal to two right angles : things which are equal to the same thing are equal to each other.

A natural diet is always a condition of health, and never a cause of disease. Therefore, living on a natural diet is the way to prevent disease ; and, where disease exists, it is the way to cure it.

Food, and air, which is a kind of food, make blood. Pure food makes pure blood. That food which is natural to any animal makes the kind of blood required to build up a healthy body. If, for lack of such food, this body has fallen into a state of disease, the way to cure that disease is to eat such food, and such only, as is needed to make all the tissues of a healthy body.

In certain states of disease, where the organs of digestion are weakened and disordered, the best beginning of a cure may be total abstinence for a time from all kinds of food. There is no cure like it. If the stomach cannot digest, the best way is to give it rest. It is the one thing which it needs. If a dyspeptic would fast for a week, taking no food—nothing whatever but pure soft water, and that only when demanded by the sensation of thirst—he would make the best possible beginning of his cure.

In all acute diseases there is want of appetite. This is the voice of nature forbidding us to eat. Some physicians and many nurses disobey this voice, and force food down the throats of disgusted patients. They feed the fever ; they disturb the organs of nutrition, which need rest. They prolong the disease, and make the cure more difficult.

Rest for the stomach, the liver, all the organs of the nutritive system, may be the one thing needful. It is the only rest we will not permit. Drugs, gruels, draughts are poured into the poor stomach, hour after hour, night and day, when the one thing the wretched organ requires is to be let alone.

Why not the wearied, exhausted stomach, as well as the tired muscles, the jaded nerves, the overwrought brain? Why may not the whole nutritive system have its needful rest, and recuperation thereby?

There are no other means by which any organ can recover from diseased conditions. You may say the heart never rests: it beats on night and day, from an early stage of foetal existence to the close of life. But the physiologist will tell you that the heart, each auricle and each ventricle, rests between its contractions, and, when there is much disease, the heart in many cases makes a pause—drops out a beat—and then goes on. When we find from 50 to 70 pulses a minute, we expect life to continue. When the pulse, hour after hour, is from 90 to 130 in the adult, we know that life cannot last so: the condition of cure is to reduce the frequency, so the heart may have rest, and if we do not, it must rest altogether.

But that much abused organ, the human stomach, needs many hours of rest every day. It turns and churns; it pours out gastric juice; it absorbs liquids of all sorts that are poured into it; it shields its delicate surface from pepper, mustard, salt, vinegar, hot things and cold things, and the narcotisms of tea, coffee, alcohol, and tobacco, as well as it can; and its fellow organs—salivary glands, liver, pancreas, and the myriad glands of the *prima via* (the whole nutritive system)—do their work as well as they are able; but they all need rest—they must be nourished as well as the rest of the organism. Blood-vessels and nerves must build them up.

And what rest can there be for a poor stomach with five meals a-day, ending in a hearty supper just before going to bed?

The utmost that any one should take is three meals a-day, and the last should be the lightest and easiest to digest, and should be eaten at least six hours before retiring to rest. Then there is some chance for the stomach to recover its tone in the hours of sleep, and of a good appetite for breakfast.

But three meals a-day are too many for great numbers of persons. Dyspeptics do much better on two meals a-day—a breakfast at eight o'clock, say, and a dinner at four. This is the regimen of brain workers. Better than this for some, and perhaps for many, is the rule of one meal a-day—a rule which some I know, and know of, have practised with great advantage.

I have known a case of serious organic disease, which I

feared might prove speedily fatal, to be entirely cured by a seven-months' fast on one very moderate and very pure meal a-day—one meal at noon, or 1 p.m., which never contained flesh, and seldom eggs or fish. The diet was one of fruit, bread, vegetables, milk, without tea, coffee, or other stimulants. The result was the gradual absorption of a large tumour on the liver, and a general improvement in health, which has continued to this hour. There is little doubt that the life of this lady has been prolonged many years by her seven months' abstinence, and she now works happily on two meals a-day.

Dr. J. C. Jackson, an American physician, suffered from dyspepsia and heart disease, and after vainly trying many remedies, adopted one meal a-day of bread and fruit, and has lived an active and useful life for many years on that diet.

Multitudes of miserable sufferers from dyspeptic diseases—and all chronic diseases are dyspeptic—could be cured, if they would eat but once, or even but twice in the twenty-four hours. What they do under the advice of ignorant or unprincipled physicians, so-called, is to eat every few hours—to take all sorts of messes—Liebig's extract of meat, beef tea, jellies, fish, flesh, fowl; filling up the intervals with "nourishing" stout, port wine, perhaps whiskey or brandy, with the usual sedatives and tonics.

The marvel is that people live at all under such a regimen. Humanity is wonderfully tough. I found a leaf from an old ledger of a chemist some time ago, filled on both sides with daily charges for medicines to a poor woman—3s. to 6s. per day for two months; how long it had been going on before, or how long it continued after, I could not tell—but no horse or ostrich could have borne even one month of such drugging. Blessed be homœopathy!—at least, it allows nature to do her work. It permits patients to get well. Allopathy, in thousands of cases, kills them outright, and it always interferes more or less to hinder cure.

Remember that for every disease of every organ of the body, the first condition is rest—rest for stomach, rest for brain. Broken bones, and cut or torn muscles, must have rest, or there can be no cure. For the vital organs there must be, at least, diminished labour—intervals of rest—all the repose that is consistent with the necessary operations of life. In disease of the heart, we must diminish the amount of the circulating fluid, and remove all stimulants and excitements to over action. It is chiefly through the stomach and nutritive system that we can

act on heart or brain. The more rest we can give to the stomach, the more chance for it its own recuperation, and that of all the organs which it supplies with nourishment.

Wise people, falling into any ailment, take a bath, go to bed, and fast, leaving Nature to do her own work of cure, and not hindering her beneficent operations.

CHAPTER VIII.

THE QUESTION OF QUANTITY.

ANIMALS vary widely as to the quantity of food they consume. Insects, in the early stages of their existence are diligent eaters, while, in their perfect state, they scarcely eat at all. Serpents take a huge meal, and then eat nothing for months. Many fishes are exceedingly voracious, eating their own weight of food, perhaps, every day. Travellers tell us that there are tribes of men who can eat twenty pounds of fish, mutton, blubber, or even candles at a meal. We see men who have trained themselves into a similar gormandising capacity—men of an “unbounded stomach,” who spend their lives eating and drinking. We see others, men of a finer intellectual capacity and great industry, who are content with a few ounces of simple food.

Physiologists have tried to solve the question of quantity by measuring the daily waste, and have come to ridiculous results. Professor Gamgee, of Owen's College, for example, says a man must consume two pounds of solid and six pounds of liquid food every twenty-four hours. As beef and mutton contain 75 per cent. water, a man should eat eight pounds of one or both to get the proper quantity!

But what determines the amount of waste? A man must get rid of all he eats and drinks, or he must retain it in his system. If he keep at the same average weight, the daily waste will depend upon the daily consumption. He who eats and drinks two pounds will lose two pounds; he who eats and drinks six or eight pounds must get rid of that quantity. How, then, are we to get at the normal daily waste, and therefore at the requisite quantity of food?

Louis Cornaro, a miserable, broken-down dyspeptic at the age of 40, adopted a simple and nicely-chosen diet, which he

limited in quantity to 12 ounces a-day. He recovered his health, and on this diet lived for 60 years longer in great enjoyment of life.* The case of a cure of inveterate dyspepsia was published some years ago in America—that of a Mr. Brown, of Rhode Island—who, as a last resort, adopted a diet of dry, brown, wheat bread. He ate one ounce for breakfast, one ounce for dinner, and one ounce, and often but half an ounce, for supper, taking nothing besides but water. He says that he not only got well on this diet, but gained in strength and even in weight.†

We all know thin people who are large eaters, and stout people who are small eaters. The man who eats from 12 to 16 ounces of food a-day may be as well nourished and capable of as much physical or mental labour as the man who eats several pounds.

It is my experience—and I believe that of many others who work as I do—that the less I eat the better I feel. I do not vary much in weight through months and years from 160 pounds. In solid, dry weight, my food, day by day, would not exceed ten or twelve ounces, and often, for days together, it would not weigh six ounces. I am satisfied by my own experience and what I have seen of the effects of diet upon others, that most persons can be perfectly well nourished in full health and activity on from four to eight ounces of food, excluding liquids, and that the amount of water taken may safely be left to the demands of thirst.

The rapidly growing child may take a quart of milk a-day. A quart of milk weighs two pounds, but more than nine-tenths of that weight is water. From the weight of fruit, vegetables, greens, and even flesh meat, deduct that of water and the in-nutritious vegetable or animal fibrous matter, and the dry

* See "How to Live on Sixpence a-Day," for particulars.

† This seems rather a strong case, but there are facts in physiology which physiologists have not very satisfactorily accounted for; this, for instance:—Dr. Carpenter, in his "Animal Physiology," p. 177, gives a case of a jockey who, being weighed before a race, was allowed to take a glass of wine shortly after. On being again put into the scales, the jockey was found to be some pounds heavier. Another rider, two hours after taking a cup of tea, was found to have gained six pounds in weight. Mr. Hands, a surgeon, says:—"I once knew a woman (Mrs. Smith, East Street, Manchester Square), who, in the course of thirty days, discharged from the stomach, bladder, and bowels, fluids, &c., nearly equalling the weight of her whole body, and this without eating, and almost without drinking." He adds that "Dr. Hooper relates similar cases."

weight of the flesh-forming and heat-forming elements is much less than most people imagine.

The young usually eat more than the old, not that they need more, but because they have more power to digest and dispose of superfluous quantities. The aged, with failing strength, find that they cannot safely eat so much, and they find also by experience that so much is not needful.

The first rule of quantity is the law of use. We should eat to live—not live to eat. We may take pleasure in eating, and the best food, to an unperverted taste, is also the most delicious. Strawberries, grapes, peaches, are very healthy foods. But enough is enough. Franklin's prudent rule was to leave off with a good appetite. Eating more food than is needful is a waste of all the forces required to digest and otherwise dispose of the surplus quantity.

Growing children, it is said, need more than adults, whose growth is accomplished. Granted—though the waste of an adult from labour may be more than the growth of a child—but how much more? An ounce a-day is nearly 23lbs. a-year. No one expects to grow at that rate.

The truth is, that the amount of food said to be eaten by navvies and other strong men is not the cause of their strength, but it is their strength which enables them to digest and dispose of such quantities of food. Weak men would break down under the burthen.

The quantity of food eaten has so little relation to strength and weight that we have men eating ravenously and at the same time pining to skeletons, and growing weaker and weaker; and we have strong men living on a spare and simple diet and increasing in weight. Fatness is oftener a sign of disease than of health, and the fat cattle, sheep, and pigs of the Smithfield shows—the obese prize animals that are so eagerly bought by butchers and eaten by gourmands—are in all cases diseased animals and causes of disease to those who eat them. Animals unnaturally fattened—the stall-fed ox, the pen-stuffed pig, the goose kept in close confinement and stuffed until his liver swells up and fills his body, and is then made into *pâté de fois gras* for other geese without feathers to gorge on—are all diseased, and causes of disease.

Over-feeding and unnatural feeding are causes of disease to vegetables, animals, and men.

A paper on sheep farms, in a recent agricultural report, is very instructive. Wherever sheep are fed on turnips, which is

not their proper food, and the turnips are raised with artificial manures, which are not *their* natural food, the diseased and overgrown turnips cause disease in the overfed sheep. They lose their lambs in great numbers by abortion; many lambs die, and the sheep die, when they are not killed and sent to market to kill the men who eat them. Here is over-feeding all the way through.

To economise life, which is the great secret of health, "waste not, want not"—we must find just the quantity of food we require—that which will supply the force we need and will not uselessly take from what we have. Of course, we must keep within the limits of our digestive power; but we must do better than that. A man may be able to digest and dispose of three times as much food as he really requires. One ounce more than he requires is a waste of force, a waste of life. We waste life in eating more food than we need, in digesting it, and then in getting rid of it. Here is a triple waste. We have other work to do in this world than eating unnecessary food, and spending our strength for nought.

Sidney Smith, Dean of St. Paul's, once made an estimate of the number of cattle, sheep, pigs, geese, turkeys, and chickens that had marched through his body in a long course of London dinners. It was an appalling procession.

When we consider the life of a man who lives to eat, we do not wonder that gluttony is reckoned one of the seven deadly sins, nor at the punishment of him who "fared sumptuously every day."

CHAPTER IX.

THE QUESTION OF QUALITY.

It is of no use to discuss the question—Which is most important, quality or quantity of food? Both are of vital importance. Poisonous food will kill, and over-eating will kill. Men die of surfeits, and are suddenly killed by an overdose of whisky.

With reasonably temperate people, quality is most important; with careless and greedy ones, quantity.

Whatever the quantity of food, the quality is important. The smallest bit of measly pork may give one a tape-worm. A morsel of trichinous ham or sausage may fill the body with horrible and deadly parasites. The smallest prick of the sur-

geon's dissecting knife, carrying the poison of dead and diseased flesh, may cost him his life. Hydrophobia does not depend upon quantity, nor does smallpox, or any of the contagious diseases. Animal poisons are terribly subtle. Quantity seems to have nothing to do with them.

When we have to deal with narcotics—the exciting, intoxicating, poisoning principles of tea, coffee, tobacco, and alcohol,—quantity, no doubt, is an important element; but the *safe* way with all these mere luxuries of diet is to let them alone. They have no appreciable value as food. They act only as stimulants to the nervous system, and the effect of all stimulants is to weaken and finally to destroy.

No doubt there are many who live to old age in their habitual use. We can never say, however, that they did not shorten life. The man who lives to eighty using brandy or tobacco, might have lived twenty years longer without them. But if we take a thousand smokers or drinkers, and a thousand who abstain from alcohol or tobacco, there is no doubt at all of what, other things being equal, the result will be. As a rule, on an average, men are more healthy and longer lived without stimulants.

And as to food, there can be no doubt that every plant and every animal is at its best when it is in natural conditions, and living upon its natural food. The deer in his park, the horse in his pasture, the monkey in his grove, are at their best for health and life. Shut the horse up in a stable and feed him on oats and he gets out of order. Send the monkey to the "Zoo" and he dies of consumption.

The best food for man is fruit, and the best fruit that which grows in the fresh air and sunshine. Bread is the staff of life—bread and its equivalents, and bread in its simplest forms.

Probably there is no better bread in the world than that which is made to-day in Syria just as it was three thousand years ago. The women grind the day's supply of wheat between two stones. The sweet, freshly, coarsely ground whole wheat meal, with all its rich, sweet, mucilaginous bran, is wet with pure water, kneaded into thin cakes and baked before the fire. The North American Indians made their bread in the same fashion of the maize they crushed in mortars, and the American negroes followed their example in making their hoe-cake—thin cakes of maize meal baked on the flat surface of a large hoe set up before the fire. The Indians also parched the kernels of Indian corn in the hot ashes, from which, when

heated to a certain point so that all its starch globules burst at once, it popped out with a loud explosion, and became "popped corn," which was their provision in long expeditions. Fancy an army provisioned with pop corn! But these savages, so provisioned, thought nothing of marching fifty miles a-day, going in single file through the forests at their usual gait of a long trot.

The oaten cakes of Scotland, baked upon the girdle, an iron plate hung over the fire, do not differ much in healthful nutritiveness from the hoe-cake, or Johnny-cake; and any of these breads of primitive or rude peoples are better than the loaves of over-fermented, constipating, white bread, made of fine and often damaged and adulterated flour by our bakers.

Wheat is the best of grains, the richest in nutriment, and containing just what is required to nourish us in accurate proportions; oatmeal or maize may come next—and maize is said to be preferred to wheat in cold climates, as containing more oil; but all these grains are good for food. Rice is good, but as it has a larger proportion of starch than the others, and less of the nitrogenous, tissue-forming elements, it may require some addition of milk, or eggs, or some seeds specially rich in such elements; such as peas, beans, or lentils.

And all these grains may be cooked in many ways—parched, roasted, boiled whole, crushed and boiled, or made into bread and baked, or cooked in combination with various kinds of fruits.

But, as a rule, the simpler forms of preparation are the best, as in the oaten cake and oatmeal porridge, the bread of the whole wheat meal, or wheaten "mush," the Indian corn bread, or hominy. Fine flours are starchy and constipating. They lack the best elements of nutrition, which are near the husk, and thrown away with the bran. Moreover, the presence of the bran—and of a certain proportion of indigestible matter in vegetables and fruits, promotes digestion and the regular and necessary action of the intestines. Living on fine flour and concentrated aliments causes dyspepsia, constipation, piles, tendency to fistula and consumption. Living on brown bread, wheaten porridge, oatmeal, fruits and some kinds of greens, as spinach, cures all these uncomfortable and dangerous disorders.

With bread comes fruit. They should always be eaten together, or not far apart. 'Man, it is true, can live on bread and water—if the bread be good—containing the whole goodness

of the grain. Living solely on white baker's bread would be a dangerous experiment. White bread needs plenty of fruit to replace what has been foolishly thrown away.*

But man can live perfectly well on fruit. There are some millions of people in Eastern Africa who, for four months in the year, have no food but dates—dates which are sold at retail in London for twopence a pound, and may probably be bought in quantities for a penny a pound, after being brought across the country on camels and shipped to England.

Dates, figs, apples, pears, peaches, plums, grapes, are all dried and brought to us from the countries where they grow most plentifully. Thus we have dates and figs from North Africa and Turkey; dried grapes from Spain and Portugal; dried apples from France and America, which latter sends us also dried peaches; dried pears and plums from France. These are all good for food, and can be had the year round. Many of these fruits are also packed in tins, but this process makes them more expensive.

Most of these dried fruits can be restored to something like their natural condition, and nicely cooked. Dried apples put in soak over night absorb the water of which they were deprived by drying. So do figs and raisins. Lightly stewed, or simmered an hour or two in a gentle heat, adding a little sugar when needed, makes them delicious. No one can desire a better meal than a piece of well-made brown bread and a dish of any one of the fruits I have mentioned, or a dozen more which make the mouth water to think of. Even the oranges and lemons coming in such quantities just when they

* Brown bread was made by all bakers eighty or a hundred years ago. They made it of the whole wheat meal, sometimes mixing it with rye, and it was very sweet and wholesome; but the poor ate the rich. They thought white bread a luxury, and the better sort went out of use. Now, few bakers will make genuine brown bread even to supply a growing demand. Most of the brown bread of the bakers is made of flour mixed and coloured with bran, while all the middling and best parts are wanting. Mr. F. W. Smith, a Leeds baker and confectioner, as I am correcting these pages, has sent me two loaves of genuine and delicious brown bread, made of the best white wheat, ground on his own premises by a steel mill from Nichols & Co., 429 Oxford Street. One loaf is raised with yeast, one with "Dr. Nichols' Sanitary Bread Raiser," a baking powder made of the purest materials. Some like the flavour of yeast, perhaps from habit; we prefer the sweeter bread made without fermentation—sweeter because fermentation converts a portion of the starch into sugar, and the sugar into alcohol, so that so much is lost. Every baker in England could easily make such bread, and so, for that matter, could every family.

are most needed, keep large populations of our crowded towns from the diseases which would otherwise be engendered by bad air and bad food. When these fruits are scarce, there are always more patients at hospitals and dispensaries.

Then we come to what are called vegetables, which are substitutes for fruit, and also for bread. The potato, largely composed of starch, is really very much like bread, and a big mealy potato, baked or boiled, is very good food. One proof of this is that we can eat it every day with a relish, as we can bread or apples. Like rice it needs some addition—but pour over your nice potato a little cream, or milk, or even butter-milk, and you will find it a delightful food, and, with this addition, abundantly nutritious. Or, to balance the starch of the potato, take with it the nitrogenous peas, beans, onions, or cabbage, in any of its varieties, and you will not lack nutriment.

Do you really think a bit of bacon will improve the repast? What is a bit of bacon? It is a piece of the dead body of a hog—a very filthy animal, and liable, therefore, to scrofulous diseases—shut up in a very nasty pen, and fattened on garbage; an unclean beast, living in unnatural and therefore unhealthy conditions. Does the reader know how many hogs are fed? Drovers are kept at the great butcheries to eat up whatever men will not devour. Others are kept at the knacker's yards to eat —, but I will not disgust my readers with all these details. A New York speculator lately proposed to buy an island in the bay, carry to it the garbage and dead animals of the town—horses, dogs, cats, rats—and make millions of dollars by fattening great herds of swine for the New York market; or to ship in bacon, ham, and naval stores to Liverpool. Be assured of this, the bit of bacon is not nice, and it is not healthy, any more than the ordinary sausage. Better a little unpleasant truth now, than much disease hereafter.

But, if it were nice and safe to eat, the bit of bacon is a mistake, because it contains very little nourishment. A herring is worth, as food, three times its weight in bacon. An egg which costs a penny, has more nutriment than threepence worth of fat pork. What is your bacon? Fat, grease, animal oil in membranous cells. Fry out the fat and you can blow away the membranous substance that remains. The streak of lean, if there be one, is muscle; but altogether, it is of less value as food than a very small bit of bread. It has a salty taste, and is eaten as a relish. A pinch of salt and a little butter or oil would answer quite as well.

But beef and mutton—they, at least, are full of nourishment. Is it not the “roast beef of Old England” that has made us, etc., etc.?

Quite so. A few centuries ago Spain had a larger empire than Great Britain has to-day. The Roman armies that conquered the world did not live on beef or mutton. They dipped thin brown bread in a little sour wine or vinegar, when they could get it, and drank water. To-day, Russians and Turks are fighting on little else. Practically, the Turks are vegetarians and teetotalers. The testimony on all sides is, that no men in the world have more courage and endurance.

After all, what is this beef and mutton? To begin, it is 75 per cent.—three-fourths—water. Your pound of beef really contains four ounces of solid matter. Half an ounce or more is fat, equal to so much olive oil. And all there is of nutriment has come from *grass* and *turnips*. *Voilà tout*. You eat grass and turnips at second hand. A piece of brown bread of the same weight as your steak or chop has far more nutriment.

Baron Liebig was a very clever chemist. He made a study of butchers' meat, and gave us the result in those little porcelain pots ordered by all the doctors and sold by all the chemists. He put the sum and substance of thirty pounds of beef into a little pot you can carry in your pocket. A big ox is done up in a small parcel, and can be sent by post. It is very convenient. You go to South America where cattle run wild on the prairies, and send out horsemen to drive them into pens. Then you kill a few thousands, and send their hides to the tanners, their bones to the turners, their fat to the tallow chandlers or butter makers. The flesh is left; but Baron Liebig, being a great chemist, found that there was no nutriment in the fibrine, and that is thrown away—made into manure. But there is a juice, an extract, a flavour, containing certain salts supposed to aid people in digesting bread and potatoes. That is boiled down, put in porcelain pots, and sent home for doctors to order and chemists to sell. And all the chemists of Europe know that this *extractum carnis* contains not one atom of nourishment—no matter that can make fat, or muscle, or nerve—that it is, in fact, a mere flavour, and not so good as mushroom catchup.

A pound of wheat has more nutriment than four pounds of beef or mutton. That is the simple, scientific fact. And the flesh, bone, brain and nerve matter furnished at first hand by bread and fruit is purer and better than that taken at second hand from grass and turnips.

Of animalised matter used as food, the most natural is milk. It is the first food of all animals of the class to which we belong. Milk, made from the purest portions of the blood, contains all the elements of nutrition. The young mammalian is perfectly nourished on milk. The milk of cows, goats, sheep, camels, and even of asses and mares, has been the food of millions. In the form of butter and cheese it is distributed widely over the civilised world. In our provision shops may be found cheese from America, Holland, France, Switzerland, and Italy. • One district of France exports 4,000,000 francs' worth of cheese which bears the highest price in every market in the world. It shows the economic genius of the French people. This highly-prized cheese of Roquefort, which sells for 2s. a pound, is made of the milk of the sheep.

Butter is a form of animal oil, but cheese is a nerve and muscle forming food of high value—the equivalent of albumen in the egg, and of the gluten, or tissue-forming portion of wheat and similar grains.

Eggs are also very perfect types of food, since they contain all the elements that form the perfect bird when it breaks from the shell.

• Milk and eggs are better, as food, than the blood from which they are formed, because they do not contain its excrementitious matter. The waste of the body is not taken into the milk. No doubt some poisons, some germs of disease, may find their way into the milk of mother or nurse. The infant gets its portion of intoxicating beverage or narcotising drug. It grows nervous on its mother's tea—too often it acquires a taste for its nurse's gin or beer. It is not well to take the milk of diseased or badly-fed cows or women. Nature does what she can to protect us, but there is a limit to her powers. Before birth and after birth the habits of mother and nurse affect the child.

Of strictly animal food, I think we may most safely take that which is farthest from us. Oysters, and similar shell-fish, and the purer, less oily, more easily digested of fishes may be eaten if needful; but they are not so healthy—they do not afford so natural and pure a form of nutriment as bread, and milk, and fruit.

CHAPTER X.

PRINCIPLES OF THE DIET CURE.

LET US NOW come to the application of the Principles of the DIET CURE. Let us understand what is meant by EATING TO LIVE.

We have seen that all plants and all animals are healthy when they have a due supply of natural food, and other natural health conditions. We have placed water and air with food, as properly belonging to diet. Light and warmth are also necessities of life.

We have light from the sun, and the atmosphere is all around us. It is our fault, or, in some cases, our misfortune, if we are deprived of pure air and sufficient light. For warmth, in our climate, we need shelter, clothing, and, at times, artificial heat. Filtration, or, still better, distillation, will give us pure water, which we also get in sufficient quantities in fruits and vegetables. We may come, then, to the effects of diet upon the health, and the particular methods of what we call THE DIET CURE.

In fevers, and all inflammatory diseases, fasting, absolute diet, or what physicians have called an antiphlogistic regimen, is a matter of the first importance. As a rule, nature herself points out this remedy. When animals have any malady, they stop eating. Loss of appetite is a symptom of disease, and it points also to the mode of cure.

Not only must the stomach have rest, but all the organs of nutrition, and the nerves which produce their action. When we stop food in fevers and inflammations, we diminish the volume of the blood, and relieve the action of the heart; and by relieving the system of the labour of digestion and assimilation, we allow the nervous force to expend itself in recuperative action.

The maxim, "Stuff a cold, and starve a fever," is true enough so far as the fever is concerned; but a cold is a sort of fever—a local fever or inflammation of some part of the mucous membrane—and there is no better remedy for a cold than abstinence from food, and taking some means to restore the action of the skin.

In nine cases out of ten a cold is caused by over-eating. In

all such cases it is obvious that fasting is a portion of the proper cure.

Dyspepsia, or indigestion, is the centre and source of a large part of all our maladies. Affections of the liver begin at the stomach. What people suppose to be disease of the heart is, nine times in ten, irritation of the stomach. Headache, sleeplessness, nervousness, melancholy, hypochondria, are dyspeptic symptoms. What we call a tired brain is really a disordered stomach. A few days' fast, a few weeks of a very careful diet of brown bread and fruit, will cure nine cases in ten of such disorders.

Suppose there is more disease, caused by other irregularities and excesses than those of eating and drinking, with nervous exhaustion and irregular action—what *must* be the cure? Not drugs. They excite, they stimulate, they set up morbid action; but they have no restorative power. We can act upon the skin by the hot-air baths, or the wet-sheet pack—we can stimulate, tone, and invigorate the nervous system by hot and cold water, and friction; but the centre of cure must be in the stomach, and the nutritive and blood-making system. The nerves must be built up afresh, and only pure and natural food can do the work. Over-action and disorderly action will subside, if the diet be made perfectly bland in quality, and sufficiently moderate in quantity. When the diseased action subsides, healthy tissues can be built up, and pure nerves and glands will take on orderly and healthy action.

As health is the natural result of conformity to the laws of life, disease is equally the natural result of the violation of those laws. Remove the cause or causes of disease, and the effects will cease. Restore the conditions of health, and health will naturally follow.

It is possible, of course, that the injury has been too great for remedy. For example, a man may be starved so nearly to death, that the stomach cannot digest food, nor the glandular system convert it into blood. There are incurable injuries and incurable diseases.

Happily these are comparatively rare. The tendency and the strong effort of nature or the mysterious principle of life is toward health. Nature cannot restore a lost arm, but she heals terrible wounds, unites broken bones, and restores diseased organs to healthy action. Every day we see people who have been prostrated by disease restored to vigorous health. And, in all these cases, we have to recognise the important

fact, that it is nature—never the surgeon, never the physician—that cures.

Take the case of the broken bone. The surgeon can put the pieces in their proper place, and keep them so. That is all that he can do. Nature brings the bony matter where it is required, and deposits it so as to unite the severed parts. The whole process goes on without our help. We can give only rest and food, and some conditions of cure. So in wounds. We can remove foreign bodies; bring and keep the parts in contact; moderate inflammation, if that be needful;—but we cannot deposit one atom of new matter, nor form one fibre of muscle or nerve. Cure is beyond our power.

We can help to cleanse the skin, and excite it to healthy action; we can provide good air and good food. In some cases we can remove internal obstructions; but the nervous power must do its own work in its own way. We can raise or lower temperature—quicken or retard action; but the absorption of morbid matter, and deposition of healthy matter, are utterly beyond our power. We can poison, we can kill; but nature alone can cure.

“Nature is doing her best for Captain Montague,” said a distinguished oculist, who was summoned from London to look at an eye that some careless sportsman had injured: Nature always does the best she can, and all we can do is to modify conditions.

These conditions of cure are rest, cleanliness, air, food. Sympathy and hope, no doubt, are potent aids, or important moral conditions of health and cure.

And what should we naturally consider the most important element of cure? Given a good constitution—given a good nervous organisation—the one thing needful is pure blood. The material of blood is food. Good food makes good blood; good blood is the one thing needful to build up a healthy body.

This is what we mean by the THE DIET CURE. Eating to Live is the practical application of this principle.

They have on the Continent what is called “The Grape Cure.” The people of Paris, debilitated, broken down, made dyspeptic with its business excitements, dissipations—all its unnatural conditions—go off among the vineyards, breathe the pure air of the country, and live on grapes. They eat a little bread, and three or four pounds of grapes a-day. The bread should not exceed eight to twelve ounces; grapes at discretion.

Of course, no drink is required. There is an abundance of pure, distilled water in the grapes, and in them also are all the elements of a pure and perfect nutrition.

People get well under this treatment, because, from day to day they get rid of all the old matter, impure matter, and diseasing matter of their bodies, and replace it with new, pure, and healthy matter.

This is the principle of every genuine cure. Formerly, physicians opened people's veins, and let out great quantities of "bad blood," that it might be replaced with good. That is as needless as it is unnatural, and therefore dangerous. The badness of the blood goes out through the pores of the skin, through the lungs, through the kidneys and the bowels, hour by hour. We do well to expedite this process—to open the pores by baths, exercise, and friction; to favour the action of the lungs by an out-door life, and by breathing plenty of good air, night and day; by eating such food as will keep our bowels active, etc. There is no doubt that we can very much help and hasten this work of purification; and, in all diseases, purification is the first process of cure.

There is something in the juices of the grape, and of all similar sub-acid fruits, which acts directly upon the matter of disease. Without these elements which exist in fruits and vegetables people are liable to scurvy. Even a certain quantity of lime or lemon juice will prevent scurvy, and fresh fruits or vegetables will cure it. When the crew of Lord Anson's 100 gun-ship the *Centurion* was so broken down with scurvy that of those who remained alive scarcely a dozen were fit for duty, a few weeks at the beautiful island of Tinian restored them to health. The surgeon and his medicine chest could do nothing. The fruits and vegetables of the island did the work at once.

The casting out of the diseased matter is purification—the renewal of the body with pure and healthy food is invigoration, and the two constitute a cure.

The blood builds up and nourishes the body, under the influence of the nervous power. The brain cannot act without blood, nor act well without pure, healthy, living blood. If too little blood goes to the brain there come lassitude, weakness, fainting. If too much, we lose consciousness. If the blood is impure the brain is clogged and acts badly. If the blood lack oxygen the face becomes purple and we sink into unconsciousness. If there are poisons in the blood they are instantly dis-

tributed through the brain. How quickly we feel the effects of opium or alcohol! "Those who drink beer think beer," somebody says. No doubt the blood that is formed of good bread and its equivalents and good fruit, or its best substitutes when it cannot be obtained, feeds best the brain as well as every organ of the body.

But this grape cure, however efficacious and delightful, the reader may say, can only be enjoyed at certain seasons and in certain localities. Not so. Grapes can be kept fresh the whole year round. The fresh juice of the grape can be bottled up and preserved for years. The dried grapes—the raisins of commerce and cakes—can be made to absorb the water they have lost so as to become a delicious fruit for eating; and if grapes at 3d. a-pound absorb twice their weight in water, the cost of the thus restored fruit is but 1d. a-pound. No doubt the process of drying in the hot sun has increased the quantity of sugar—still they are **very** good food.

But we may have other cures almost as good as the grape cure. What do you say to the strawberry cure? Live through the month of June on bread and strawberries, as the French live on bread and grapes, and you will come to the same result. But you must really live on them—breakfast, dine, and sup on strawberries. To eat soup, fish, beef, pudding, cheese, and then take a little plate of strawberries and cream for an aggravation of such a repast will do no good. Flesh and fruit do not harmonise. The gastric juice secreted to digest flesh will not act on fruit. It must have a special gastric juice of its own. A tiger never eats strawberries. He knows better. They would be sure to lie cold on his stomach, and give him a dyspepsia. The elephant would eat a bushel and put out his trunk for more. The fox will eat the goose, and the goose will eat the corn.

Then there is the raspberry cure, and the gooseberry and currant cure—not quite equal to the grape cure, perhaps, but much better than no cure to a man with scurvy or any disease of the blood whatever. There is also the cherry cure. Did you ever, in your fresh and unperverted childhood, climb into a tree loaded with ripe cherries and eat your fill? It took a long time, and you ate a great many. If you swallowed the stones it was no harm. Nature attends to all that, because cherries were made to be eaten. Then come plums, apricots, nectarines, peaches, figs, pears, apples, oranges, tomatoes.

There are fruits the year round even in England, though not

always so abundant, and therefore cheap, as we could desire. But the demand will bring the supply, and I hope that this little book will double, treble, quadruple the consumption of fruit in England, and diminish the consumption of flesh and drugs in the same proportion.

All the fruits I have mentioned are valuable as food. A man can live on oranges. But the pulpy fruits—figs, dates, apples, have abundant nutriment. In America hogs are fattened on apples, and often on peaches. In New Jersey and Delaware the peach orchards cover hundreds of square miles. You drive for hours through a forest of peach trees. In a good season the trees are loaded to breaking, and the ground is covered with a crop that men cannot gather, nor railways carry, nor great towns consume. Then herds of swine are turned in to devour them, and the pigs grow so dainty in a few days that they will only eat the fruit as it falls freshly from the trees. Many tons are now saved by the process of canning, however, and by the new machines for rapid drying, which were formerly lost.

Now, if fresh beef and mutton can be brought from America, and even from beyond the tropics, by the refrigeration process, fresh fruits can be brought in the same way, and that would give us the means of health the year round; and no one will say that the means of health are not next in importance to the means of grace.

Close by Malvern, across the Severn valley, empties the Avon; and the warm, rich Avon valley around fair Evesham is one of the loveliest of all the vales of England, with many square miles planted with orchards and gardens. In the summer time thousands of women and children are employed in picking currants, gooseberries, cherries, plums, etc., which are loaded on the railway trucks and sent off to the great northern towns as far as Glasgow. If I could have my way such gardens and orchards should be scattered all over England. I would cover with them the hop fields of Kent and the soft, sunny regions of the whole south coast to Land's-End. Why need our grocers' shops have French prunes—as if the English soil would not grow them? Why honey of Narbonne? Why eggs of Normandy? Why not cover England with cottages, gardens, and orchards, and so provide food for a healthy and happy population, without ever a strike or a lock-out?

The orchards that exist need to be renewed. They were planted for cider, and cider is apples spoiled. The nutritive

elements of grain and fruit are lost in the fermentation which converts them into alcohol. One can make a hearty meal on raw or roasted apples, but no one can live on cider. We destroy immense quantities of good and healthy food every year to make bad and diseasing liquors; and then get into stupid panics on the population question.

It takes no more land to raise good fruit than bad fruit. Every square yard may have its bush, and every square rod its tree. No man can understand the waste of land in this country till he has seen how they use it in Belgium, say, or Switzerland, in Burgundy or Northern Italy. People talk of the greed of landlords. Our landlords are not half greedy enough. They let the land lie half cultivated. In Italy the land is cultivated on shares, and it is the interest of landlord and tenant alike to make it produce the utmost; and fruit trees are not planted in England because landlords will not take the trouble, and tenants have no security.

CHAPTER XI.

MEDICAL OPINIONS ON THE DIET CURE.

MEDICAL opinions on the use of remedies vary almost from year to year. Medicine has its changes of fashion like millinery. Forty years ago, Continental physicians were blamed by English medical professors for not adopting the full and frequent blood-letting of the English schools. To-day the Continentals are denounced for having adopted and continued the same practice.

The disagreement of doctors is proverbial, and is the necessity of a so-called science that has no principles. Allopathic medicine does not even profess to have any. It is confessedly empirical, tentative, experimental.

But from the days of Hippocrates all wise physicians, all careful observers, have had but one opinion on the importance of diet to the preservation of health and the cure of disease.

Dr. T. J. Todd, formerly an eminent physician of Brighton, in his elaborate article on "Indigestion," in the *Cyclopædia of Practical Medicine*, says:—"Indigestion, considered in its almost universal prevalence and in its remote consequences, is the source of more suffering to man than any disease to which

by his physical nature he is exposed, and, therefore, ought to precede all others in its claims upon the attention of the physician. It is, indeed, a very egregious mistake to imagine that the opinion, which attributes health to a pure digestion, and every species of disease to its disorders, is one of recent growth. It is one which has been sanctioned by the experience of the greatest physicians of every age and country. To the greatest of them all the healthy state of the function of digestion seemed so important that he has not hesitated to declare, if not exactly in so many words, certainly in equivalent terms, that he who shall have discovered the means of a healthy digestion (which he considered to consist in the exact adjustment of food and labour), shall have discovered the great secret of health. In this respect Aretæus has gone a step beyond the father of physic; for to a healthy digestion he not only attributes health of body, but also health of mind. And to give this opinion only its full extent, we may add with all propriety that sweetness of temper, clearness of intellect, vigour of understanding, correctness of judgment, firmness of character, power of self-control, are preserved by a healthy state of the digestive organs, and may be lost by their disorder; for as it is by the diseases of these organs that intemperance works its mischief, all that sages, all that philosophers have delivered in praise of the virtue of temperance, may, without stretching a point, be fairly predicated of the healthy state of the function of digestion. When will legislators stoop to consider, or when shall legislators be made to comprehend, the influence of physical causes upon moral conduct? The state of the digestive organs has the greatest influence upon the state of the other organs of the body. Their disorders are frequently the cause, frequently the consequence, of the disorders of other organs."

"In every ten cases of acute disease," says Andral, one of the most distinguished of French pathologists, "which seem to arise in elsewhere than the digestive tube, there will be eight in which there will be more or less derangement in the structure or functions of the intestinal canal; while in chronic diseases, of whatever kind, it is extremely rare that the digestive tube does not show some alterations."

Cullen was of opinion that physicians could not bestow too much pains on the consideration of the affections of the stomach; and Dr. Todd believes that "there is scarcely a disease which afflicts the human body that can be correctly

treated if the nature of the diseases of the digestive organs be not properly understood," and that "a thorough knowledge of dyspepsia in all its forms and varieties may therefore justly be considered the key to the cure of many acute and of most chronic diseases." And he concludes his article with the following sensible observations:—

"The mischief which springs from the disorders of the function of digestion is not limited to the individual—it extends to the offspring; for the disposition to these diseases being hereditary and increasing in virulence as it descends, the dyspepsia of one generation becomes scrofula, consumption, or some other malignant disease in the succeeding ones; hence the decay and extinction of families, and all the manifold attendant miseries. When will parents, besides, if not before, wealth and honours, think of bequeathing health to their children?

"Moreover, as the diseases of the function of digestion may be said to belong peculiarly, if not exclusively, to a state of civilisation, following it as closely as the body is followed by its shadow, they may be considered as the physical process by which luxury and refinement work the deterioration of the species, and prepare its decay—the under-current, which, setting against, stays or frustrates the progress of society. When will the physical state of the body cease to be deemed an unworthy means of promoting our moral—our religious improvement?"

Dyspepsia is produced very largely by errors of diet. No doubt these are aided by all kinds of debilitating causes—exhausting labours and more exhausting passions. But all waste of life falls upon the stomach. If we get fatigued by either muscular or mental labour, we are tempted to take too much food, just when we have least power to digest it, or we resort to stimulants, or both together, and so the fountain of force is disordered.

Our domestic animals suffer from the same causes of disease. "Singing birds and lapdogs," says Dr. Parry, "confined and highly fed, are subject to the whole train of nervous affections: as palpitation of the heart, breathlessness on slight motion, hysteria, convulsions, epilepsy, hemiplegia, and apoplexy."

Horses shut up in stables and fed on oats and beans become constipated and seriously diseased. To get the coarser elements of their natural food—the vegetable fibre—which is to them what the bran of wheat and the fibrous portions of fruit and vegetables are to us, a horse will eat up his stall or his blanket.

Cows similarly confined and fed on brewery grains and distillery slops, have first dyspepsia and then scrofula, until their teeth fall out, their lungs and livers become masses of tubercles, until they die of consumption—or would so die—if they were not killed, and their diseased flesh sold to cause more scrofula, and more consumption, after their diseased milk has been day by day distributed to poison the blood of poor children. In the cases of these poor animals, foul air and darkness combine with want of exercise and bad food to create dyspepsia, scrofula, and consumption. The cows farthest from the door, and which have, therefore, least light and fresh air, are the first to suffer.

Apjohn on Toxicology says:—"When cattle are overdriven, their flesh applied externally in a raw state to a wound, however small, causes a diffuse cellular inflammation, which sometimes has destroyed life. The flesh of animals suffering from a disease which the Germans calls *milzbrand*, irritates and inflames the intestinal canal of those who eat it, and even those who flay the animals, and produces all the symptoms of cholera; or causes malignant pustules which prove fatal in twenty-four hours. Poisoning is also produced by changes in bacon and sausages, and very serious and fatal diseases."

Knowing how great masses of our people live, can we wonder that a historian of the plague would say:—"It has never been known when a plague did not first begin among the poor."

It is, indeed, no wonder that nine-tenths of the victims of every epidemic are among the poor. It is not mere hardship that is suffered by the poor—it is murder. The cholera, which took here and there one among the rich, swept off the poor by thousands, because they were prepared to be its victims; they had no power to resist. They live in filth and darkness, deprived of fresh air and vivifying sunshine, and pure food. The refuse meat, fish, fruit, and vegetables of every market, is sold to the poor. If you do not believe this, go through the Sunday morning markets of London—Leather Lane, Seven Dials, New Cut, and a dozen more east and west—crowded and noisy marts till twelve o'clock every Sunday, and see and smell.

The Plague in London, in 1665, was ascribed by many people to the quantity of bad meat eaten by the poor. There had been a plague among the cattle, and "the markets were inundated with meat, which thereby became so cheap to the poor that they fed on it to gluttony."

Pure food makes pure blood; pure blood makes pure nerves; pure nerves build up a pure, sound, healthy body.

CHAPTER XII.

OF DIET IN ACUTE, SCROFULOUS, AND NERVOUS DISEASES.

THE testimony of the most enlightened physicians as to the importance of diet in the cure of disease can be found in every medical library. The ancient physicians were so impressed with this importance, that they divided the whole art of physic into three parts—Dietetics, Pharmaceutics, and Surgery. It is remarkable that the rules of Hippocrates for the treatment of varix, or aneurism, by abstinence, or the Diet Cure, are precisely the same as those of Valsalva, the most successful physician in the treatment of diseases of the heart in modern times. He gradually reduced the diet of his patients to 12 ounces of pudding—a plain farinaceous food, which could not have contained above four ounces of dry nutriment, a-day. Under this diet, and by this means alone, with the natural conditions of rest, air, light, cleanliness, his patients recovered. The cure began at the stomach. The pressure and the waste of superfluous food were withdrawn. Nature repaired the damage of disease.

“Rigid abstinence,” says an eminent English medical writer, “is a most powerful remedy in all acute diseases. It should, in such cases, be carried far beyond the degree prescribed as a part of the antiphlogistic regimen. In diseases of the stomach, to withdraw food nearly altogether for a time, would be to employ an actual and powerful remedy.”

This was the “*diète absolue*” of Broussais, the great French physiologist, who taught that the stomach and intestinal canal were the centre and source of nearly all diseases.

An English writer on diseases of the brain and nervous system, gives the same testimony to the importance of diet. “The remedy for the permanent disposition to apoplexy,” he says, “is the strictest abstinence—living upon the smallest quantity and simplest quality of food that will sustain life. Thus Valsalva cured aneurism and diseases of the heart.”

Dr. Tweedie, in his article on Erysipelas, prescribes “abstinence from animal food of every kind, as well as from wine and fermented liquors.”

Dr. Wm. Stokes, on Peritonitis, says—“Light farinaceous diet, in small quantities, and rice or barley water for drink, are most suitable for the patient.”

Dr. Gregory, on Small-pox, says—“Hence the great mortality

of the disease in that class of adults who indulge in full living, with a large allowance of ale and porter."

Dr. James Clark says—"One-third of the mortality of this country arises from tuberculous diseases. Dyspepsia always accompanies scrofula." Again, he says—"Of all diseases, we consider dyspepsia the most fertile source of cachexy (scrofula) in every form, for this plain reason, that a healthy condition of the digestive organs is essential to the supply of healthy nourishment to the body. Bad food, impure air, hard and impure water, and absence of light, are the chief causes of consumption."

"If a child is born of scrofulous parents," says Pemberton, "it should be suckled by a healthy nurse for at least a year; after this the food should consist of milk and farinaceous substances. By a perseverance in this diet for three years, I have found that the threatened scrofulous appearances have certainly been postponed, if not altogether prevented."

The diet is, as Pemberton has remarked, at least as important as medicine. That which he recommended consists of milk, dressed vegetables, gruel, and other farinaceous food.

Dr. J. Hope says—"The correction of dyspepsia is of the first importance in organic diseases of the heart."

Dr. Houghton, in his article on "Organic Diseases of the Stomach," gives strong testimony to the efficacy of the Diet Cure. He says—"Animal food should be altogether dispensed with. Milk, when it agrees, should constitute a large portion of the aliment. The example of the eminent anatomist, Beclard, affords much encouragement (if not in cancer, yet in simple ulceration,) to a steady perseverance in this course. Having become affected with an organic disease of the stomach, manifested by unequivocal symptoms, he determined on treating it by a rigorous diet, little short of abstinence, from which he did not suffer himself to swerve, until, after a considerable period, the symptoms disappeared. He recovered perfectly, and afterwards his death took place from an acute disease of the brain, consequent upon erysipelas, when *post mortem* examination displayed the cicatrix of a large ulceration in the stomach."

Dr. Joy, on *Tabes Mesenterica*, says—"Tubercular affections can be induced *at pleasure* in the domestic animals by improper feeding and want of fresh air."

But perhaps one of the strongest testimonies as to the effects of a pure and careful diet in the prevention and cure of disease, is contained in the admirable article by Dr. John Cheyne, on

"Epilepsy," in the *Cyclopædia of Practical Medicine*. Dr. John Cheyne was, if we mistake not, the son of Dr. George Cheyne, of London and Bath, and the author of many valuable works on medicine and diet. It is said of him in *Chambers' Encyclopædia*—"From full living, he became enormously fat, as well as asthmatic, and resolved on adhering to a strictly milk and vegetable diet, from which he derived so much benefit, that he recommended it in all his medical treatises."

Dr. John Cheyne says—"It is needful to stipulate that our patient shall no longer yield to his appetite or inclination. He must move by fixed rules. He must eat only what is placed before him by order of his physician, not asking to have his food varied or enlarged. We do not exaggerate when we affirm that not one individual in ten, labouring under chronic illnesses, strictly observes the rule of diet which is appointed for him by his physician. Drunkenness, in the middle ranks of society, is much less prevalent than formerly; but epicurism in eating, much more so. The affected delight with which some popular writers have expatiated on the refinements and indulgences of the table, has been, we fear, supposed real, and has given a stimulus to sensuality much to be deplored, especially among young men, many of whom now put no restraint upon their appetite for rich and savoury food; while, on the pleasures of the table they descant as shamelessly as if they were fit only for the society of Apicius. In general, there is no difficulty in persuading patients to relinquish intoxicating liquors, which, as almost every sensualist is aware, seldom fail to produce painful exhaustion in proportion to pleasurable excitement, and which are well known to unfit those who habitually indulge in their use for animal gratifications which are more prized; but very great indeed is the difficulty which we encounter in securing a strict acquiescence in our injunctions with respect to food; and if this cannot be accomplished, it would be well that the physician at once should decline the care of an epileptic patient.

"Eminent physicians—as, for example, Dr. Fothergill—have recommended abstinence from all kinds of animal food and fermented liquors. He tells us that, 'In the form of epilepsy, which may be supposed to proceed from disorder of the digestive organs, evidenced in craving appetite, and supported by inattention to diet, laxatives, with a light chalybeate, interposed and steadily continued, together with a course of diet consisting of milk, vegetables, fruits, and things prepared from them, and in moderate quantities, seldom fail in removing the disorder.'

"In Heberden's 'Commentaries,' we have the following pithy illustration of the importance of diet:—'Two epileptics abstained from all animal food, and were cured.' And Dr. Abercrombie, no mean authority in this or any other practical point, is of opinion that the only remedies of real efficacy in such cases are purgatives, a strictly vegetable diet, and total abstinence from strong liquors. According to our experience, it would not be easy to overrate the importance of diet in epilepsy; at the same time, we admit that many changes may be necessary before the full advantage is obtained which diet is capable of yielding,—one rule alone, in our opinion, being established, namely, that food ought ever to be taken in great moderation; in other words, that there is danger in a full meal, however unexceptionable the materials may be of which it consists. All kinds of fermented liquor, tea, and also coffee, ought to be given up, together with the use of tobacco, if unhappily the patient should have addicted himself to the use of that poisonous and demoralising weed."

And, to this rather emphatic condemnation of tobacco, Dr. Cheyne adds the following note:—"Tobacco is an enemy to domestic economy and personal cleanliness: it taints the breath permanently, injures the digestion, impairs the intellect, and it even shortens the life of some of its votaries. Cullen says it produces loss of memory before the usual period. Snuff keeps a great many of the females engaged in lace-making, in this neighbourhood (Newport Pagnall), under the continued influence of hysteria, and gives them an early stamp of age; at thirty, a snuff-taker looks as if she were forty years old. It is the sole cause of a variety of dyspepsia, of which we have witnessed a vast number of instances—the symptoms being a painful sensation of a lump at the stomach—of a hard undigested substance pressing, as it were, upon a tender part of the stomach, which sensation is, for the time, relieved by taking food; remarkable depression of spirits, everything seen through a medium of gloom and distrust; and tremors of the nerves. 'Upon an accidental interruption of snuff-taking for a few days, the pains do not occur; upon a return to snuff, the pains return'—(*Cullen's Mat. Med.*, Vol. II. p. 275). Chewing tobacco will produce the same affection. Smoking produces anorexia and emaciation. The chief evil, however, in tobacco, taken in any way, is that it leads myriads upon myriads to the habitual use of ardent spirits and opium, and consequently to the ruin of soul, body, and estate."

CHAPTER XIII.

THE DIET CURE IN OBESITY.

OBESITY is a disease, hereditary and constitutional in many cases, but induced in others by under-exercise and over-eating. Where obesity is a fashion, and regarded as the perfection of beauty, women are kept in idleness, and fattened like so many prize pigs. There is a machine for fattening chickens. Farmers breed cattle and sheep that will fatten quickly.

Dr. Williams, in his article on "Obesity," in the *Cyclopædia of Practical Medicine*, has some good observations and remarkable cases. He says—"A full diet, abounding in oily, carneous, saccharine, and farinaceous matter, will seldom fail to fatten a person disposed to corpulency; and if to this rest of body and mind be added, the effect is almost certain. But where the diet is moderate, and there is plenty of exercise, obesity does not exist. Dr. Arbuthnot says—'You may see an army of 40,000 soldiers without a fat man; and I dare affirm that by plenty and rest, twenty out of the forty shall grow fat.' The portly appearance of butchers, landlords of inns, and butlers, is obviously referable to their good living and moderate exercise."

It depends more upon the quantity than the quality of food. Most animal food contains considerable fat; and starch and sugar are both convertible into fat. Thus the negroes of the West Indies, and the Chinese coolies, sometimes acquire an enormous size during the sugar season, by drinking the cane juice; and it was remarked by Galen, that the keepers of vineyards, who live on nothing but figs and grapes, become fat.

The effects of malt liquor are well known. It is not that the beer itself contains a large quantity of matter convertible into fat, but it certainly promotes the conversion and retention of other fattening materials. Mr. Wadd gives the case of a man employed in a brewery to watch the vats, and taste the new beer, who became so obese as to be a burden to himself, and useless to his employers. Reduced to poverty, he could get little to eat, and drank water. He soon became able to work, regained his health, and lost his obesity.

Mr. Wood, a miller, who grew to an extraordinary size, was induced by the rector of his parish to follow the example of Cornaro. He adopted two sparing meals of vegetable food a-

day, and drank only water, and finally took no liquid. By this plan he reduced himself to a weight of ten or eleven stone, and was "metamorphosed from a monster to a person of moderate size, and from the condition of an unhealthy old man, to perfect health and the vigour and activity of youth."

Dr. Fothergill gives a similar case: A country tradesman of thirty, very fat, drowsy, inactive, livid, could scarcely keep awake to describe his situation. Dr. Fothergill advised him immediately to quit all animal food, and live solely on vegetables and drink water. He lost his redundant fat, and grew well and active in six months.

In the case of a young lady, he gave the same advice, with the same results; but her friends interfered and persuaded her to return to her accustomed diet. The result was that in her twenty-seventh year she died of obesity.

A gentleman of great respectability in the mercantile world, who weighed thirty-two stone nine pounds, put himself upon a strict diet of four ounces of animal food, six ounces of bread, and two pounds of liquid in twenty-four hours. In one week he lost thirty pounds weight, and in six months he was diminished the astonishing quantity of one hundred and thirty-four pounds.

Dr. Williams also gives the case of a baker, living in Pye Corner, who attained the weight of thirty-four stone, and could not move out of his chair for many years. He would frequently eat a small shoulder of mutton, five pounds weight, and proportionably of other things, and drink a gallon of good beer. He was moreover of a costive habit, and required four times the strength of an ordinary purgative to operate on him. He with great resolution persisted for one year in living on water-gruel and brown bread, and lost nearly two hundred pounds of his bulk.

All that is necessary, Dr. Williams says, to cure any ordinary case of obesity, is—"1st, To remove the accumulated fat; 2nd, To exclude from the system all material of nourishment beyond what is necessary to supply the demands of the excretions; 3rd, To ensure that the nourishment that is taken in be applied only in this way. All these indications may be fulfilled by diet and exercise."

For food, he specially advises brown bread, which, it seems, was made at that time, about forty years ago, by London bakers, of a mixture of wheat and rye meal, which, he says, "acts on the bowels more than any kind of bread or biscuit."

If there is a feeling of lack of quantity, he advises fruit, with little or no sugar. No solid food after dinner. As much exercise as can be taken, and plenty of bathing and vigorous friction of the limbs and body with the hands or flesh-brush.

Here, half-a-century ago, was a really sensible physician. *O si sic omnes!* It is true that he prescribed some medicines, but it is evident that he did not at all think them needful.

And it is very certain that no man or woman need suffer from this disease of obesity. It is simply to limit the quantity of food to the daily expenditure and waste of the body. If we eat good food, breathe pure air, and take a reasonable amount of exercise, the lungs, skin, kidneys, and bowels will perform their functions. We have then only to take just so much nourishment as we require. The moment we find an increase of weight, we have only to diminish the quantity of food, or increase the amount of exercise, or both.

The disease of obesity is, like most other diseases, perfectly in our own control.

It seems needful that something be said about the system of Mr. Banting, which became a fashion a few years ago, but which now is seldom heard of. Mr. Banting advised people to live on flesh, or tissue-forming foods, and to abstain from the fat and heat-forming foods. He advised an unnatural diet, consisting of the fibrin of meat, the gluten of bread, the albumen and caseine of eggs and milk, leaving out starch, sugar, and oil.

Nature knows much better how to prepare our food than Mr. Banting. The diet he recommends would destroy the health of any one. We need the elements of heat and force in large proportion. We cannot meddle with nature's mode of mixing them without serious mischief. Separating the bran from the fine starchy flour, has given us bread that causes dyspepsia and constipation. Living on flesh, and other concentrated foods, has produced similar results. The rule of health is, to eat natural food, with all the elements of nutrition in their natural proportions; and the easy way to avoid obesity is to eat less food and take more exercise. It is to fill our lungs, open our pores, and keep our bowels in good order. It is, in a word, to take the Diet Cure.

CHAPTER XIV.

VIS MEDICATRIX NATURÆ

IF, as we have seen, a rigidly careful diet can conquer such organic diseases as aneurism, and such nervous affections as epilepsy, what is there that it cannot cure? Surely there is no curable disease that a pure blood may not conquer.

But what diseases are curable?—rather, we may ask, What disease is incurable? When a certain portion of the skin has been destroyed, there is no hope of life. When a certain portion of the lungs are filled with tubercles, the patient must die. When cancer has gone to a certain point—when the mesenteric glands can no longer convert food into blood—life is impossible. But within such limits there is hope. People say, “While there is life there is hope.” Alas! there may be life that will last for weeks—for months—but not enough life to give a hope of cure. Every physician sees that. Any one may be called upon any day to pronounce sentence of death.

But there is more hope of cure than many think of. Nature has wondrous recuperative powers. If we depended upon medicine, it would be sad indeed. Drugs never cure. The broken bone unites: the wound is healed: the abscess breaks, discharges, does its purifying work, and health follows. Fevers purify the system. We recover from frightful maladies.

It is the *Vis Medicatrix Naturæ*—the healing force of nature—that does the work. So-called medicines never help, and often hinder the beneficent operation of cure. The bandage keeps the parts of broken bone in their proper place, but the bandage does not unite them. That is the action of interior forces. And so of all wounds, and all diseases. None know this better than physiologists and physicians.

One of them has said—“If a bone is broken, if a muscle, or tendon, or even a nerve is divided, the divided ends are reunited. If a portion of substance, as of the skin and cellular tissue and muscle, is lost, or cut out, the deficiency is repaired, and the cavity built up by granulations from the bottom, and at last covered over by a new skin. If a part removed is without much delay reapplied—a tooth, the tip of the ear, a finger, a part of the nose—it becomes firmly united in its original situation. Wounds of the most important organs—stomach, lungs, brain, heart—will heal under the *vis medicatrix naturæ*.”

And just in proportion as the blood is pure, and the nerves are healthful, will be the force, rapidity, and perfection of this work of restoration and cure.

We have had abundant testimony in former years as to the health and strength of the boatmen and porters of Constantinople ; but the correspondence of the Turco-Russian war has given us new ideas of the effects of temperance in eating and drinking. Thus an English colonel writes of the hospital at Scutari :—" There were 1184 patients, most of them badly wounded. They were all wonderfully fine men in physique, and, from the absence of alcohol, or any sort of intoxicating drinks, seemed to suffer comparatively little. The lives they lead keep their blood in such a healthy state, that their wounds heal in an extraordinarily short time." This is the case wherever men live on vegetable food—bread and fruits—and refrain from intoxicating liquors ; while it is well known to all English surgeons that, with men who live on beef and beer, the smallest injuries are fatal.

A recently published work on surgery is almost entirely devoted to the effects of rest as a means of cure. Keep the patient quiet, and nature will do her best for cure. This is the *methode expectante* of a French school of medicine, which trusts entirely to the healing powers of nature, and merely watches her operations.

Those who deny the efficacy of homœopathic medicines—who cannot believe in the million-millionth of a grain of lime or charcoal, must of course attribute all the successes of the disciples of Hahnemann to the natural tendency of all diseases to a spontaneous cure. Whatever the reason, the fact undoubtedly is, that the statistics of Homœopathy are, to say the least, quite as good as those of Allopathy. Under all systems a large proportion of patients recover. The less interference with nature, the larger the proportion of cures. The greater the attention to the conditions of health, the larger the proportion of cures, and the more rapidly accomplished.

Whatever the disease, rest, cleanliness, pure air, light, and simple, natural food and drink, are needed for cure. The hydro-pathic system, properly carried out, owes its great and rapid success to these hygienic conditions. It cleanses the skin, and excites it to increased action. It expedites the processes of purification, and therefore hastens those of invigoration. Like Homœopathy, and often even more than Homœopathy, it prescribes a simple, natural, and healthful diet of bread and milk

and fruit, and forbids the coarse, exciting, and impure diet, which renders the nerves irritable and the blood impure.

There is no doubt that the errors of medicine have murdered millions. Less than a century ago, fever and small-pox patients were kept in heated chambers, overwhelmed with blankets, and every aperture through which pure air could enter, even to the key-hole, was carefully closed. Can we wonder at the mortality of small-pox with such methods of treatment? At the same time, patients with any kind of fever were bled from day to day with lancet, cup, and leech, and dosed with calomel and purged with jalap. The wonder is that the very race was not exterminated.

The progress we have made is very encouraging. In 1750, at the British Lying-in Hospital of London, 1 woman in 42, and 1 child in 15, died; in 1800, 1 woman in 288, and 1 child in 77. This difference was owing partly to a change in treatment, but much more to improved ventilation. Simply letting fresh air into an hospital has reduced its mortality from hundreds to tens.

The effects of a change of diet upon health have been even more remarkable than those of a change of air. We learn from old London bills of mortality that the scurvy raged to such an extent as to have caused the deaths of great numbers. At that time people lived chiefly on salted meats; there were no potatoes, and even cabbages and common vegetables were little known. When Catherine of Arragon wanted a salad, a gardener was sent for from the Netherlands to raise it. Sir Richard Hawkins said he had known 10,000 men to die of scurvy. Lord Anson's whole fleet was crippled and almost destroyed by scurvy. Only one ship, the *Centurion*, went round the world, and out of a thousand men they sometimes could not muster a hundred fit for duty. When the trade winds blew her into a harbour at Tinian, there were not able men enough to furl her sails. Of those who got on shore twenty died; but in one week, on a vegetable and fruit diet, all the rest were fast recovering.

Dr. Lind wrote in 1753:—"The result of all my experiments was, that oranges and lemons were the most effectual remedies for scurvy at sea. There is no instance of a ship's crew having scurvy with a proper supply of these fruits."

When Captain Cook made his celebrated voyage of discovery in 1772, he was accompanied by men of science; and though he was gone three years, and sailed 60,000 miles, a

large part of the time in high southern latitudes, so admirable had been the arrangements for the health of his crew, that during the whole voyage he lost only one man by sickness. His sailors had fresh air to breathe, and plenty of fruits and vegetables to eat. There can be no more healthful place than a clean, well-ventilated and well-provisioned ship at sea; yet what multitudes of poor sailors have been *foully* murdered—shut up in the *foul* air of the fore-castle, and fed on *foul* salt pork and rotting biscuit.

If a pure diet of bread and fruit is a perfect security against and rapid cure for scurvy, why should it not equally prevent and cure all similar diseases? Scurvy is a morbid state of the blood from bad diet, bad air, and other filthy conditions. It prevailed in badly-fed armies, in besieged cities, and on badly-provisioned ships. More seamen have perished by scurvy than from all other causes combined—and all so needlessly. With good food, good air, and cleanliness, armies, navies, prisons, schools, whole communities can be kept in perfect health—not only free from scurvy, but from typhus, cholera, dysentery, and all kinds of diseases.

CHAPTER XV.

THE DIET CURE IN VARIOUS DISEASES.

Will the Diet Cure, as I have defined it, be an effectual remedy for *all* our diseases?

Truly, I think it will, as a means of prevention or of cure. Whatever can be done for us pure blood will do. To have pure blood, we must eat pure food and breathe pure air. Foul air will poison the springs of life. Foul food is itself poison. If we drink, let it be water as soft and pure as the juices of the finest fruit.

Even the taint of hereditary disease may be washed away. Children born of scrofulous parents, if they live in good conditions, may throw off the foulness. Gout, consumption, insanity, and the sensuality that leads to sin, disease, and death, may, no doubt, be inherited; but they may also be cured.

What we call the diseases of infancy and childhood are efforts of nature to carry out this work of purification. What else can be such diseases as measles and scarlatina? They

are violent and dangerous in proportion to the amount of inherited or acquired impurities. To children well born and well fed they come not at all, or are so slight as to give no fear.

We have seen that the scurvy has been banished almost out of the world by a healthy diet. Apples, oranges, lemons, grapes, tomatoes—even potatoes are enough to ensure a blood too pure for the once-dreaded and terribly fatal scorbutus.

When the streets of London were narrow, dark, and foul, and sewers were unknown, and water was drawn from poisoned wells, and the markets had no fruits, people died of the plague. When London was cleansed by fire, the plague never returned.

All epidemics find their victims among the poor—among people of bad habits and bad conditions. But a very small percentage of those exposed to contagions of any kind take the disease. A man of pure blood and strong nerves—a really healthy man—resists contagion and malaria. The “Bible Christians” of Philadelphia, all vegetarians and teetotallers, though living in other respects like their neighbours around them, never took yellow fever or cholera. It is a proverb that every pestilence stops at the gate of a Trappist Monastery. A man of a pure life, who washes in pure water, breathes pure air, eats pure food, and never lowers the tone of his nervous system by any bad habit or any waste of life, can resist every kind of diseasing influence. If he absorb morbid matter, he quickly throws it off. If he is wounded, he is speedily healed.

Whenever a surgical operation is necessary, the blood and nerves made of pure food enable the patient to bear the shock, and give the best prospect of success. No inflammation follows—no mortification. A vegetarian operated upon for cataract will go about with unbandaged eyes in three days. A woman whose blood and nerves have been purified by a pure diet and bathing, may safely go about her usual avocations in three days after bearing a child, and be much better than one kept for a month in a close, hot, and darkened room.

It is needless to speak of fevers. People who live as they ought, never have them; and for those who do have them, the best possible treatment is fasting, washing, and a fruit diet when hunger demands food. Cool the heat with water to the skin; quench the thirst with water to the stomach, and when the blood has cast off its foulness, renew it with bread and fruit. In those days of darkness, when cool air and cool water were alike banished from the sick-room of the fever patient, it

is no wonder that he grew insane, and rushed to the water jug or jumped into the cistern, and in either case quenched the fever and grew better from that hour.

That abstinence will cure obesity is self-evident. When one is growing unwieldy the fattening process can be stopped by cutting off the supplies. When a man of enormous bulk was a few years ago sentenced to penal servitude, no one was surprised to learn that in a few months he was alike improved in health and reduced in weight. Plethora and apoplectic tendencies yield at once to a simple and restricted diet.

And dyspepsia, the prolific source of so many diseases, what can ever cure that except the diet cure? Every diseased organ must have rest as the first condition of cure. The diseased stomach will get well if we only give it rest, and the simple way of giving rest to the stomach is, to eat less food and at longer intervals. The rule of diet in health is to keep well inside the digestive power. The rule in disease is more stringent. Two meals are better than three, and in some cases, perhaps in many cases, one meal in the twenty-four hours is best; giving a longer period for recuperation.

The quantity of food taken must be so much less than might be disposed of, as to leave a surplus of force to repair damages. Six ounces, dry weight, of bread and fruit, is probably too much in cases of serious disease. Four ounces of dry toasted brown bread, or its equivalent in other aliment, as milk and fruit, would bring about a more rapid cure.

. And in all cases of irritation, inflammation, and especially of ulceration of the stomach, the food should be of the blandest character. The gastric juice secreted to digest flesh eats into the denuded muscular coat of the stomach, while the gastric juice secreted to dissolve vegetable substances, like bread and fruit, will not act on either raw or cooked flesh. To a tender stomach there is no better food than a baked apple, and for a diseased stomach and bowels, for dyspepsia and constipation, there cannot probably be found in the world a better or more perfectly adapted aliment than Dr. Nichols' "Food of Health," or in cases which require more action on the bowels, his "Wheaten Groats," now kept by most chemists. These foods are perfectly bland, very easy of digestion, and make pure blood, containing all the elements of a perfect nutrition.

The stomach and the organs of nutrition are the key of the situation. When the blood-making machinery is in good working order all the rest is easy. Blood makes nerve, and nerve

again makes blood. With both, and upon both, Life does its work. The power that forms the body is the same that restores it to health.

One-third of the people of this country die of diseases of the lungs. Our great destroyer is consumption. The causes of consumption are bad air and bad food. The prevention and the cure of consumption are pure air and pure food. These make pure blood, and an active skin, made healthy by bathing, friction, and exercise, keeps the blood pure. With such blood, and nerves made from it, the lungs keep sound and do their work of purification and oxygenation. With such blood tubercles will not form. If they exist, they will be absorbed or thrown off by suppuration. There is no doubt of the radical cure of tuberculous consumption; and the way to cure it is to breathe pure air, eat pure food, make pure blood, and keep it pure. This is the cure for scrofula, and it is the only possible cure for consumption.

The diseases of specific poisons—contagious diseases—the diseases of syphilis—those now so widely distributed by vaccination—even the taint and terror of hydrophobia can be cured in no other way. Nature must conquer them or they conquer nature. If the blood is poisoned we must make it pure.

It was once believed that mercury was a specific—that it met and neutralised the poison of syphilis. That is no longer believed by the most enlightened physicians. Many no longer give mercury in such cases. I have never seen a case which did not quickly yield to a pure bread and fruit diet and a full action of the skin. If I had a thousand cases in every stage, I would cure them all with the Turkish bath, or a portable substitute which can be used anywhere, and with a bread and fruit diet. If I were bitten by a mad dog, I would wash the wound thoroughly in ammonia, pressing out any poison that had been absorbed (but by no means sucking the wound, much less allowing another to do so), and then I would rely perfectly upon a healthy diet and an active skin to free me from the virus.

Now and for many years the torment of physicians and the harvest of quacks has been the prevalence of nervous diseases brought on by ignorant or wilful waste of life. The more central and the more important the function, the more terrible are the consequences of its disordered action. And when weakness leads to irritability and irritability to weakness, what can we do to stop the work of ruin? Stimulants and tonics are useless, and much worse than useless.

For nervous exhaustion there is but one remedy. It falls upon the stomach, and the stomach needs rest; while weakness craves for food, and the food keeps up the disorder. It is a very difficult thing; but there is only one way. There must be good blood. Only good food can make good blood; but food must be digested and assimilated; the whole nervous power is weak, and without nervous power there can be no proper digestion. It is a question of quantity, as well as quality. When the digestive power is weak, but little food must be taken. All beyond a very small quantity will be a source of irritation and weakness. Better an ounce too little than an ounce too much. Come down to the minimum and increase from that. So, and only so, can the remaining force build up and gather more. Here, and here only, is the hope of cure. Pure nerves are strong nerves. Pure blood will build up a strong and healthy body. While there is life there is hope; but only in using the life that is left to make more life.

When the morbid matter laid up in the system gathers to some organ in concentrated malignity; when there is cancer of breast, or stomach, or womb, is there yet hope of cure?

The answer to this question depends upon the relation of the two contending forces—the force of the disease and the force of life. If the patient is old or feeble, if the disease is extensive and malignant, cure may be impossible. If it be possible, it can only be in one way. In the case of an aged and feeble woman, brought to Malvern to die, because her friends thought she would live longer in its pure and bracing atmosphere* I watched the effects of a diet of bread and fruit upon this terrible disease. It so changed its character that it seemed to me that, had the patient been a few years younger or a little stronger, it might have been cured. As it was she sank by slow degrees, and without pain, until one night she fell asleep and woke to a better life.

Certainly there are incurable stages of many diseases, but I doubt if there be any disease that can be properly called incurable.

* I have often, but never too much, praised the pure, bracing, delicious air of Malvern. Poets have sung of the Malvern waters in past centuries, and Dr. J. Connolly, in a work on Hysteria, written about forty years ago, said:—"Of the refreshing air of Malvern we can speak confidently as regards its surprising effects on pale, languid females, whose appearance and health begin to improve almost as soon as they remove thither; it has this great advantage, also, that it may be enjoyed without exposure to the dissipations which seem to form an essential part of a fashionable watering place."

And I know of no disease in which the chances of cure and the ease and rapidity of cure may not be greatly increased by what I have called the diet cure. I can have no doubt that a pure diet of bread and its equivalents, and fruit or its best substitutes, with proper sanitary conditions, would prevent nine-tenths of our diseases, and cure nine-tenths of such as are not prevented.

It is natural to live, and natural to live in health. Disease is unnatural. The only natural death is death from old age.

CHAPTER XVI.

THE WATER CURE.

IN a little book which has done a world of good nearly all the world over, where people have the advantage and happiness of reading English, I find the following paragraph on water.

"Four-fifths of the human body is composed of water. Blood, brain, nerves, are nearly all water. Muscle is three-fourths water, and it even enters largely into the composition of the bones. Water cleanses the surface of the body, and restores the healthy action of the skin. The skin itself contains thirty miles in length of tubes, which in health, and in the effort of the system to throw off disease, pour out water. By water all food is dissolved, and so enabled to penetrate the system and nourish its tissues; by water the waste matter of the body is carried out of the body through the skin, the lungs, and other secreting or excreting organs. We can live much longer without food than without water. No life is possible on earth without it. It is the necessary element of all vegetable and animal life. Is it strange that pure water should be the most powerful agent in producing that purification and invigoration of the body which is the cure of disease?" *

The importance of water cannot be overrated. Men and animals are said to live nine days without either food or water; but with water to drink, or even by its absorption, they may live from twenty to forty days. The sufferings of sailors from thirst have often been allayed, and their lives prolonged, by

* "A Woman's Work in Water Cure and Sanitary Education." By Mrs. Mary S. G. Nichols.

bathing in salt water, or by being exposed to its spray. The pores of the skin rapidly absorb water, and the salt is left on the surface. In the wet sheet pack, though evaporation is much hindered by the patient being wrapped in several folds of blankets up to his ears like an Egyptian mummy, the sheet becomes nearly dry. So water is absorbed from wet compresses and bandages.

Nature taught water-cure to man, not only in his own instincts, but in those of many animals: in the bathing of birds; cattle cooling themselves in ponds and rivers in the summer heats; wounded animals going to the water; the refreshment of a shower of rain to vegetable and animal life. A horse, wounded on the top of his neck near his head, was often seen holding the wound under the spout that filled his drinking trough. I have seen a colt leap over fourteen stone walls to get at soft water to drink, coming from his pasture and returning to it. A thirsty horse will pass springs of hard water on a road he is used to, to get at one of soft water. Hard water gives horses a rough coat, and men rough skins, and sometimes gravel and bronchocele, or goitre. Dr. Mason Good says he found a large number of the poor at Matlock, in Derbyshire, affected with swelled necks, while the rich escaped. The rich escape many diseases, because, able to command many of the conditions of health, they are free from many causes of disease.*

The purifications of the Mosaic Dispensation; the daily washings of Mahomedans; similar ceremonies in Oriental religions; the Roman baths so munificently furnished to the whole population of Ancient Rome, and built wherever the Romans conquered: What are these but forms of Water-Cure? And what else is the practice of visiting spas, watering-places, and seaside resorts? Some of the springs are medicinal no doubt. The water is slightly drugged—but in most cases the proportions of mineral matter are so slight that homœopaths might well make of them an argument in favour of infinitesimals. In other cases, as the mediæval reputation of the waters of Malvern and of hundreds of holy wells, those who do not believe in the miracles must allow the good effects of hydropathy.

No one at this day will deny the benefits of cleanliness—the sanitary obligation to obey the command—"Wash and be clean." No one can dip even his hands in water without feel-

* See statistics of mortality among rich and poor in Part First of "Human Physiology the Basis of Sanitary and Social Science."

ing the *refreshment*, the *invigoration* it gives, not only to the hands, but to the whole body. Bathing the face and neck increases the sensible benefit. Then why not enjoy the same luxury over the whole body? A full daily bath, followed by thorough friction with rough towels or the flesh brush will go far toward preserving and regaining health; and it belongs to the diet cure because the skin which covers the outside of the body and the mucous membrane which lines the inside of the body are the same continuous membrane, and whatever cleanses, refreshes, and invigorates the nerves, blood-vessels, and glands of the skin, also promotes the healthy action of the nerves, blood-vessels, and glands of the stomach and the intestines.

We talk of local diseases and local treatment; but it is only a mode of speaking. The prick of a pin affects the whole nervous system. Dabbling a hand in cold water will cool the whole circulation. A foot-bath acts upon the brain. Abernethy treated a sore toe by acting on the stomach. The body is a unit in the circulation of the blood and the relations of the nervous system.

Water-drinking, no doubt, has a closer relation to the Diet Cure than bathing. Water taken into the stomach bathes that organ, cools its fever, softens its irritation, helps to dissolve any crudities and undigested food it may contain, strengthens its glands to pour out gastric juice to digest them; is absorbed into the blood, and then washes out its impurities and carries them out of the body by the lungs, or kidneys, or pores of the skin. All this comes of drinking a glass of water. The cough, and sleepiness, and feverishness of irritation of the stomach from indigestion, may be relieved by one tumbler of cold water.

Ought people to drink at their meals? If thirsty, yes. The rule of drinking is thirst. If thirst is excited by taking salt and condiments, better leave them out of the diet. They are not food. They stimulate appetite no doubt—but that is just what we ought not to stimulate. Our danger is all the other way. Hunger is the best sauce—and since it is easy to have, why not have the best? It is only to wait for it.

If we eat only when we are hungry and drink only when we are dry, and then eat and drink good food and pure water in proper quantities; if we give the blood so made pure air in our lungs by night and day, and exercise to brain and body, and cleanliness to our skin, we go very far to ensure health, long life, and happiness. The foundation, at least, is well laid.

There is nothing new under the sun. Hydropathy has been practised by animals and men from the beginning. It is delightful to see a canary bird take his bath: he does it with such a thoroughness and such an evident enjoyment. A favourite subject of landscape and cattle painters is the foot and leg bath of the cows of a hot afternoon. What were all the magnificent baths of ancient Rome and those of which we find the ruins here in Britain, but a splendid carrying out of hydropathic principles? Have the Turkish and Russian baths nothing to do with those admirable qualities of courage, strength, and endurance that we have seen displayed in the Skipka Pass and on the hills and plains of Bulgaria? People who only wash their faces and hands get so much of water-cure. Priessnitz happily contrived some new or forgotten applications—chiefly the wet sheet pack and the compresses and bandages, which are partial packs.

All cure consists in the two processes of purification and invigoration, because all disease consists in impurity of blood and exhaustion of nervous power. Life itself is a process of continual purification and invigoration, and health is the fullness and perfection of these united processes.

The great purifying organs of the body are the skin, the lungs, the bowels, the liver, the kidneys. The organs of invigoration are the stomach, the small intestines, the lungs, the skin. To be accurate, we may say that the work of invigoration and of purification is done by minute glands contained in the tissues and organs we have mentioned. And the elements of these vital processes are food, water, and air. Water is the great agent of nutrition and also the chief means of purification.

The necessities of life are water, air, food, warmth. It is useless to say which is most necessary, for there is no one of them that we can do without.

Water cleanses the body externally and internally. Every globule of the blood is bathed in the water we drink. Some of the water we apply to the surface of the body is absorbed. It cleanses and it gives strength. Cold water applied to the surface directly cools fever or inflammation, and it develops force by exciting nervous reaction.

At the beginning of a course of water cure the first operation is a thorough cleansing of the skin to prepare it, by its own purification, for its work of purifying the blood, and thereby the whole body. What we want for this is hot water and soap. Water alone might dissolve the matters gathered upon the skin;

or they could be rubbed off when duly softened, but the soap bath is more rapid. It dissolves the oily matter, and so penetrates the substance of the skin. But the soap itself should be pure; and the grease from which common soap is made, and even scented soaps and what are sold as toilet soaps, may contain the foulest impurities. Considering this, I studied soaps, and after a few experiments produced my "Sanitary Soap," which is made of pure olive oil, a fine alkali, and emollient, anti-septic and disinfecting elements which make it, in my opinion, the best, the purest, and the most purifying soap in the world—fragrant and delightful for the toilet, the nursery, and the sick-room; and having such medicinal elements as to be a rapid cure for most skin diseases and sores, and an instantaneous relief for burns and scalds.

The daily bath, as I have described it, cleanses and invigorates the great vital organ which forms the surface of the body. It promotes the healthful activity of millions of nerves, blood vessels and glands. It is a source of vigour, a means of prevention, and also a means of cure. There is no doubt that the daily bath protects from colds, inflammations, congestions, and gives years of life to all who make use of it.

The daily bath aids digestion and quickens circulation—and it is therefore a powerful aid to the diet cure—or the supply of fresh matter in the system to replace the daily waste.

For our food to do us the good it ought to do we need to have all the processes of purification and invigoration in full activity, and this activity can be very much promoted by the judicious use of the various processes of the water cure.

When a patient lies for an hour wrapped in a wet sheet, so covered with blankets as to retain the heat of the body, every gland of the skin is excited to a strong purifying action. The sheet becomes filled with the foul matter of disease or waste. The cold bath which follows brings a sensible invigoration. Here are the two processes of life. Repeated day after day they cleanse and strengthen—and this is cure.

A shorter method of acting on the skin is the use of the hot air bath. This is done luxuriously in well appointed Turkish baths; but we have found that a portable apparatus—a gas stove or spirit lamp under a chair, and a double tent enclosing the patient's body up to the neck, will induce a full perspiration in about fifteen minutes, and that, followed by a good quick cold bath of any sort, it answers an admirable purpose. Is it not weakening? people sometimes ask. No: we have known

feeble invasions to take such a bath daily for months and grow stronger every day. The men who work at champooing, etc., in the Turkish baths perspire freely for fourteen hours a day, increasing in weight, strength, and health. Persons with weak action of the heart are liable to faintness in the Turkish bath; but this liability is less in our portable bath, because the head is free, and the air breathed may be as fresh and cool as can be desired.

But if we would have this process of purification do its best work, and the system built up in health, it is important that the new matter taken to replace the old should be of the purest and best. What then are we to think of water cure establishments where patients have bacon for breakfast, and are required to eat flesh three times a day, filling themselves with the matter of disease faster than the water can wash it out? In our experience of many years we have found that the more simple, the more pure the diet, the nearer the natural standard of bread and milk and fruit, the more easy and rapid has been the cure.

Pure air, pure water, and a pure diet, will certainly cure all curable diseases, because they are the simple natural conditions of a healthy life.

The Water Cure must include the Diet Cure, and the Diet Cure would be very imperfect if it did not include the Water Cure.*

CHAPTER XVII.

WASTE OF LIFE.

It is no exaggeration to say, that nine-tenths of the disease, the misery, the premature mortality, in the world about us comes of the waste of life. It follows that economy of life will give us health, wealth, and length of days. These are gifts of God: "Length of days is in His right hand, and in His left are riches and honours"—that is to say, that all the good things we seek and aspire to come from obedience to law—from economy, or a wise use of life.

Let us consider how we are wasting life just now, and what comes of such waste.

* See "A Woman's Work in Water Cure," Part V. of "Human Physiology" on Health, Disease, and Cure; and for more elaborate and practical exposition, read "Esoteric Anthropology."

Let us begin with one of the most evident instances. A large proportion of the land and labour of England, and of the whole civilised world, is wasted in the production of fermented and distilled liquors—alcoholic drinks. Such drinks are not necessary. They are mere luxuries at the best; and we know what they are at the worst. All the land and labour employed to produce malt and hops for beer, grapes for wine, and grain and potatoes for distillation, is land and labour wasted; in the production of poverty, ignorance, vice, crime, disease, and death, much worse than wasted.

Alcohol is not a necessary of life, in any quantity, or in any form. There may be little harm in the light beers of Germany, or the light wines, but it cannot be shown that there is any good. Fermentation is always the destruction of a nutritive element, in place of which we get a stimulating, intoxicating, debasing, and diseasing element. Millions, hundreds of millions of men have never tasted wine, or beer, or spirits, and no one will pretend that they were the worse for it. If every kind of distilled and fermented liquor could be banished to-morrow from the United Kingdom, the food, the wealth, the productive power—the health, prosperity, and happiness—of the country would be immensely increased.*

* The following is a copy of a petition from Sir W. C. Trevelyan, Bart., president of the United Kingdom Alliance, to the House of Commons, presented by Sir Wilfrid Lawson, Bart., M.P., June 4th, 1877:—

*“To the Honourable the House of Commons in Parliament assembled.
The humble petition of Sir Walter Calverley Trevelyan, Bart.,
prayeth:*

“That your honourable House will amend the Act for regulating the Sale of Poisons, by including therein a poison much more destructive of health and of life than any named in that Act, however deadly they may be.

“It seems to your petitioner a strange inconsistency to restrict the sale of those poisons only from which but few deaths occur, and to leave unchecked the sale of those alcoholic poisons which annually cause the death of tens of thousands, and which affect so fatally both the physical and mental power of their victims, destroying—in a word—both body and soul.

“Those who by the use of alcohol are incapacitated from fulfilling their duties, whether to the State, to their fellow-citizens, or to their own families, transmit to their descendants a deteriorated condition of body and of brain, which seriously imperils the future welfare and the vital interests of our beloved country.

“The alarming increase of lunacy, idiocy, and disease, of crime and pauperism, and an ever-increasing death-rate, must eventually lead to our succumbing, in the race with those people who are comparatively free from the habitual use of these dire poisons, and have thus retained the strength and energy of mind and body, which will enable them to compete with and to outstrip a deteriorated people in the markets of the world.

Tobacco, which was introduced into Europe about three centuries ago, and spread from Spain and France to England—and a century later to Turkey, and across Asia—if not so great an evil as alcohol, is yet an enormous waste of life. It is not food; it is a poison. The habitual stimulation of the nerves by any drug cannot but be a cause of disease. Tobacco saturates the whole body, poisons every nerve, and specially affects the reproductive functions. Where the use of tobacco is confined to one sex, this effect is not so obvious; but where it is used by both, the increase of population is checked. Women employed in the tobacco factories in America seldom have children. Nations in which both sexes smoke decline in population. Tobacco, therefore, goes even deeper than alcohol in its waste of life.

The waste of land and of labour in the production of a mere luxury, and of time and cost in its distribution and purchase, is almost beyond estimate, and second only to that of alcohol.

“For these most urgent reasons, and that we may not, without an effort to redeem ourselves, hopelessly resign the high rank in industrial and intellectual work which we have long held, your petitioner prays that your honourable House will, in your wisdom, enact a law, such as has been found most effective elsewhere, to restrict the manufacture, the sale, and the use of these most destructive poisons, and so to avert those physical, moral, social, and commercial calamities which are impending over our land, and which will too surely result, unless the debasing triumph of alcohol over the enslaved manhood and intellect of the nation be arrested.

“And your petitioner will ever pray, &c.”

To this strong petition Sir Walter appended the following opinions and testimonies:—

“The death from alcoholic poisoning in Great Britain is prodigious; it may be set down at something like one-tenth of the whole death-rate of the country.”—The late Dr. Lankester, F.R.S., Coroner for Central Middlesex.

“If there were no such thing as alcohol, half the sin and a great deal of the misery of the world would not be known.”—The late Dr. Parkes, of Netley Royal Military Hospital.

“Alcohol, as usually taken, is not a stimulant, but a depressor, and people are under a delusion to think otherwise. I have no hesitation in telling you that a considerable proportion of my income is derived from the drinking propensities of my patients. Let me press on you, as members of our noble profession, to endeavour to use all your influence to put a stop to this growing evil—the horrible curse of drink.”—Dr. Wilkes: Clinical lecture to the students of Guy’s Hospital.

“Stimulants do not create nervous power; they merely enable you, as it were, to use up that which is left, and then they leave you more in need of rest than before.”—Sir B. Brodie, M.D.

“I have long had the conviction that there is no greater cause of evil, moral and physical, in this country, than the use of alcoholic beverages. I do not mean by this, that extreme indulgence which produces drunkenness.

For three centuries a large portion of the wealth—the product of the labour of the people of England—has gone to China for tea, and a smaller portion to the East and West Indies for coffee. Their nutritive value is of no account. They are nervous stimulants and narcotic poisons; costly luxuries, but in no way necessities of life. They stimulate the brain, but they do not strengthen it. Shakespeare and Bacon, and all the strong men of the preceding age, did very good thinking without tea, or coffee, or tobacco. They are neither of them necessities of life. There is no doubt that we should be healthier, stronger, better without such luxuries. Even if those who have formed habits of using them continue their use, all children should be brought up in freedom from such habits. The longer all children are kept from tea, coffee, beer, spirits, and tobacco, the stronger will be their nerves, the purer their

The habitual use of fermented liquor to an extent far short of what is necessary to produce that condition—and such is quite common in all ranks of society—injures the body and diminishes the mental power to an extent which I think few people are aware of.”—Sir H. Thompson, F.R.C.S.

“If alcohol were unknown, half the sin and a large part of the poverty and unhappiness in the world would disappear.”—H. W. Acland, M.D., F.R.S., President, General Medical Council, Regius Professor of Medicine, Oxford.

“The mere question of the destructive effect of alcohol on the membranes of the body alone would be sufficient study for an address on the mischiefs of it. I cannot define it better, indeed, than to say that it is an agent as potent for evil as it is helpless for good. It begins by destroying, it ends by destruction, and it implants organic changes which progress independently of its presence even in those who are not born.”—Dr. B. W. Richardson, M.D., F.R.S.: Address to Medical Conference in Sheldonian Theatre, Oxford.

“It would not be too much to say that there are, at this moment, half a million homes in the United Kingdom where home happiness is never felt, owing to the cause of tippling alone, where the wives are broken hearted and the children brought up in misery.”—Mr. Charles Buxton, M.P.

“There is scarcely a crime before me that is not, directly or indirectly, caused by strong drink.”—Judge Coleridge.

“If you wish to keep the mind clear and body healthy, abstain from fermented drinks.”—Sydney Smyth.

“My opinion is, that neither spirit, wine, nor malt liquor is necessary for health; the healthiest army I ever served with had not a single drop of any of them, exposed to all the hardships of Kaffir warfare at the Cape of Good Hope, in wet and inclement weather, without tents or shelter of any kind.”—Inspector-General of Hospitals, Sir John Hall, K.C.B.

“I never suffer ardent spirits in my house, thinking them evil spirits. If the poor could see the white livers and shattered nervous systems which I have seen as the consequence of drinking, they would be aware that *spirits* and *poison* mean the same thing.”—Sir Astley Cooper.

blood, the more perfect their health, and the better their prospects of a long and happy life.

Add to a pure diet of grains and fruits entire abstinence from all stimulants, and you have so far the conditions of health; but there are other ways of wasting life. We waste life when we work beyond our powers. No man should do more work of muscle or of brain in the day than he can perfectly recover from the fatigue of in a good night's rest. Up to that point exercise is good; beyond, is waste of life, exhaustion, and decay. When hunger calls for food, and fatigue demands rest, we are in the natural order, and can keep the balance of life. When we take stimulants to spur our jaded nerves, or excite an appetite, we are wasting life.

A greater and more fatal waste is that of the premature, the unnatural or the excessive action of that part of the animal organism connected with the life of the race. The nervous abuse, and the nervous exhaustion which comes from this cause, is very widespread and very deplorable. It begins sometimes in early childhood. It ruins the health—it blasts the lives of thousands. Every physician knows that there is no more common cause of nervous disease than this waste of life. He knows also that it is, in multitudes of cases, a "sin of ignorance"—a misfortune far more than a fault; but it is not known how far the errors of an unnatural diet, and other false and diseasing habits, tend to the production of this fatal evil.

The remedy rests with parents, with teachers—with all who have care of the young. "Delicacy" is out of place in questions of health and life. The doctor comes too late. We want prevention rather than cure. Every father and every mother should know enough of human physiology to understand the laws of life that affect the health and happiness of their children, who should be guarded from this as from any other of the causes of disease.*

For the cure of nervous exhaustion from any cause, I know of nothing more important than a pure nutrition—than the Diet

* I have written very plainly of this most interior and most fatal waste of life in "Human Physiology," and especially in "Esoteric Anthropology;" but there comes to me over land and sea a constant and growing demand for a little book on this great subject, which parents may give to children as soon as they can read: a book which will teach every child just what he or she ought to know—no more, and no less—which will do all possible good and no possible harm. I believe such a book can be written, so as to be sold, very nicely bound, for a shilling, and I will try to have it ready before Christmas, 1877

Cure. There is always dyspepsia in such cases ; there is always irritation and weakness. Pure blood is the one thing needful. The great difficulty is to get patients to eat little enough—to keep the quantity of food within the digestive and assimilative power. They have a morbid craving for food, and often for stimulants, arising from weakness. But they must abandon stimulants, and come down to the simplest, blandest food, and the smallest quantities, with a gradual and slow increase. Warm water may be used to relieve local irritation; cold water for invigoration—plenty of friction, moderate exercise, pure air; but the key of the situation is the Diet Cure.

Sympathy, affection, the moral influences that soothe and strengthen, are of great importance in all cases. The mind presides over the body; if we can strengthen the will, excite hope and trust, patience and faith, we have potent influences for cure. This is seen in all medical systems; but if faith in falsehood helps to cure, why may not confidence in the truth? But knowledge is better than belief; and the principle of **all** cure is—"Cease to do evil; learn to do well."

CHAPTER XVIII.

THE LIFE OF THE RACE.

THE human race is made of successive individuals, each of whom depends upon his progenitors for his physical constitution, his health, his happiness. What each one receives from his ancestors he transmits, improved or impaired, to his posterity. Herein is a responsibility of real importance. If a man who inherits a name and an estate thinks it his duty to pass them on uninjured to his successors, how much more this inheritance of health.

It should be a matter of conscience to provide for one's offspring; and the best of all provision is that of a good constitution. For this the matter of diet is one of consequence. The germ of the future being is formed from the blood—the blood is made of food. If father and mother are purely nourished, and are living healthy lives, we naturally expect them to have healthy children. It is the reproach and the curse of our actual civilisation, that vast numbers of children are born of unhealthy parents, and in unhealthy conditions: destined to

early death or to lives of disease and suffering. This is the disgrace of our legislators.

The first duty of Parliament is the national defence; the second is the national health; the third is the national prosperity—and these three are one. Strong, able, valiant men are the best as well as the cheapest defence of a nation; and prosperity is that condition in which all can enjoy the fulness of life. Prosperity is not produced by an enormous capital in the hands of a few individuals, nor does it consist in the power of a privileged class to live in idleness on the labour of others, but in "the greatest good of the greatest number"—really the greatest good, the best possible condition, of all.

The first duty of a general is to provide for the health of his army; of an admiral for that of his fleet; of a teacher for that of his school; of parents for that of their family; of sovereign and legislature for the health of the nation. Give the conditions of health, and all the rest will come naturally and spontaneously. Industry, enterprise, education, art, whatever contributes to human culture and happiness, comes out of a healthy life.

The race is made up of individuals, and the life of the individual begins far back beyond his birth. Men inherit the physical, and thereby the mental and moral peculiarities, not only of their parents and grandparents, but of remote ancestry. Have we not Roman noses in England which have come down through fifteen centuries? The sins of the fathers are said to be visited upon their children to the third or fourth generation. But each generation may do much to cleanse itself of evils. A pure life is a daily purgation, and, in many cases, the condition of the blood, the nerves, and of the whole body, can be wonderfully changed and improved.

When the blood is made pure by a pure diet and all the conditions of health, we may expect the formation of healthy germs of future life. If these germs are purely nourished and developed in healthy conditions, we may look for healthy children. Then the process goes on. Pure blood makes pure milk, which is converted again into pure blood in the infant, to build up a healthy body.

The diet of father and mother has very much to do with the health of the child. A drunken father begets an idiotic child. A sensual man transmits the curse of disordered amateness to his posterity. Tendencies to insanity, and to vices and crimes which are but little removed from insanity, may be given

by either parent to their offspring. In marriage there are more important things to consider than position or wealth, and what the world calls a good match may be a very bad one. The young man who has wasted his life has thereby robbed his posterity. Sowing wild oats provides a sad crop for one's children.

Legislators, educators, religious teachers, should make a study of physiology; and no education can be complete without it. Every human being should know enough of the science of life to enable him to guard his own health, and thereby secure, in a great measure, the health of his offspring. Especially should women, who have so much of the life of the race in their keeping, understand its laws. Animals instinctively do the best they can for their young. We have it in our power to know good and evil—to choose the one and avoid the other. Certainly every mother should know at least so much of human physiology as belongs to the reproduction of the species, the management of children, and the life of the race.* Every woman has a right to all science that can guide her more securely in the path of life. She has a right to know how she can best perform her duties and acquit herself of her responsibilities. In these matters it is not knowledge but ignorance that is shameful; and shameful because it is dangerous.† Surely it is better to know of an evil and so avoid it, than to be ever so purely and sweetly ignorant, and thereby fall into it and be destroyed. He who shuts his eyes that he may not see a pit may fall into it and be smothered in its filth.

* I am sorry to disagree in this matter with so eminent a scientific man as Professor Huxley, who has written a work on human physiology for young ladies, in which he has entirely omitted all that relates to the function of reproduction, so that no one reading the book would get from it any idea that people were begotten or born, or that there was any method by which the human species could be continued. A work on botany, written on the same plan, is still wanting to carry out this ingenious educational system.

† I have done what I could, in my "Human Physiology" and "Esoteric Anthropology," to remove this shameful ignorance, and I think I have shown in my lectures to men and to women that the very arcana of sexual physiology may be so treated as to give not only no offence but a purer delight to the most delicate mind. As there is no filth in Chemistry, there is no impurity in Physiology—properly treated. No fact in nature can be immoral. All immoralities are violations of natural law. In my next book I hope to do for children of tender years what I have tried to do in "Esoteric Anthropology" for men, and especially for women; to prepare a Beacon Light, which will warn them of the sunken reefs and treacherous quicksands which beset even the beginning of the voyage of life.

It is true that knowledge may in some cases facilitate wrongdoing. A chemist can poison—a marksman can shoot people; one who knows that water will drown, or that carbonic acid gas will suffocate, may choose one of those modes of suicide. But in all these cases the knowledge does not give the disposition to abuse that knowledge. And it is so of all knowledge. It cannot be shown that physiologists are specially immoral. It is evident that the tendency of all science is the other way. Those who know most of the properties of alcohol, opium, and tobacco, are least liable to misuse them. Those who know the dangers of vice will be most likely to shun them. Ignorance is no security to virtue or health, but is a great danger to both.

Our sins of eating and drinking are mainly sins of ignorance. We form habits which, if we knew their tendencies, we should carefully avoid. The man who most perfectly understands what is needful for the best sustenance of the human body, and what is prejudicial to health, will be most careful of his own diet, and of that of his children.

A simple, pure, temperate diet leads to health—to that calm, strong, harmonious development of all faculties and functions, which is the condition of the finest activity, the greatest power, the truest virtue—the most perfect life of the individual, and the progress of the race.

CHAPTER XIX.

THE POPULATION QUESTION.

WE have glanced in passing at the relations of diet to population, but it may be useful to consider this matter more fully. For a century men have been troubled with the dread of a surplus population—with the idea that there might be more people upon the earth than could be fed. It has been thought that the natural increase of the human species is more rapid than any increase in the fertility of the soil and the productiveness of vegetation. Wars, pestilence, and famines must therefore be the means of disposing of the superabundance of humanity.

But there are elements not taken into account in these calculations. Men do not multiply according to the calculations of mathematicians. The world, which has a known

history of 4000 years, is not one-tenth peopled. There are vast regions of fertile lands very thinly populated. England, after a historic period of 2000 years, has a population of some twenty millions. Russia and Turkey, in the east of Europe, are sparsely peopled, and therefore badly cultivated. Spain, with a fertile soil and a superabundance of food, has less population now by millions than it had two centuries ago. Italy has less than it had in the times of the Romans. North Africa and Asia Minor are full of the ruins of cities, and do not contain one-tenth of their former populations. As a matter of fact, then, so far from there being any danger of over-population, it is all the other way. The danger is in the decay of the race. In many countries the increase is slow; in some there is an actual decline.

If we examine our own country we find that while some classes increase in numbers others diminish. Among the aristocracy families run out so rapidly that the House of Lords can only be kept up by continual additions from the middle classes. If there were no new creations of nobility, and nobles married only in their own class, the class would soon become extinct. The better the condition of any class, as people estimate conditions, the less is the number of children born; wealth, ease, luxury are opposed to an increase of population, and actually produce a decline.

Intellectual activity is also opposed to increase of population. Our greatest men have no posterity. The lower we go down in the scale of being the more prolific we find animal and vegetable races. Fishes breed by millions. A fungus contains spores by myriads. As we increase the physical comfort and intellectual development of people we diminish their multiplying force. Universal education, then, and universal well-being, are the best possible preventives to over-population.

While we are slowly rising to the higher standards of civilisation, what we require is economy of our means of sustenance. If half the soil and sunshine of a country is wasted in the production of alcohol and tobacco, it must be contented with half the people it might easily maintain. If the land that would feed ten men on bread and fruit is used to feed one on beef and mutton, we must be content with one-tenth the population we might maintain in better health and greater enjoyment of life. If one family occupies the land that would perfectly well feed ten families, we diminish in the same proportion the sum of human happiness.

For centuries to come there can be no question of over-population. What every nation now wants is people. Population is impeded far more by maintaining standing armies in peace than by the carnage of war. With the enforced celibacy of so many men comes the necessary celibacy of great numbers of women, and the prostitution also of a large number. It is the business of statesmen to put an end to war and to the necessity for armies and navies. It is the business of legislators to so economise the means of life as to provide the conditions of health and happiness for all. Then we may feel entirely secure that the population question would settle itself.

Up to a certain point, the increase of population would increase the means of sustenance. When the matter taken from the soil is again restored to it, there is a constant increase of fertility. The more it produces, the more it can produce. Farms that produce 30 bushels of wheat to the acre can be made to produce 60 bushels, and that again can be doubled by superior methods of culture. There is not the least doubt that England could feed ten times its actual population. Were every acre of land cultivated like a garden, and made to produce its utmost of the best food for man, we can see what a change there would be—what a chance for a vast increase of population. And there are whole continents to be so peopled and so cultivated.

The natural condition of man is not that of a hunter, ranging through forests and living on game; nor that of a shepherd, living on his flock. It is rather the Eden life of the gardener, living on the fruits of the earth. England as a forest could feed a few thousand savages; England as a pasture could support a sparse population of herdsmen and shepherds; but England as a garden could feed an immense population.

And there is reason to believe that the numbers of that population would find a natural limit in intellectual development. In any case, the diet we have recommended is precisely that which nature is able to furnish in the greatest abundance—is precisely that which secures the highest health and vigour of life. It is our safeguard from disease, and our proper means of cure.

“Increase and multiply, and replenish the earth,” is the law of life, written in the constitution of man and in that of all living things. There is ample scope for obedience to that law for ages to come, and there is no reason to doubt that if ever the time shall come when any checks to population will be needed,

such checks will be provided. Our business is to make the best we can of man, and of the earth his dwelling-place.

"Is life worth living?" asks a writer in *The Nineteenth Century*. When we have made the best of life we can, not only for ourselves but for all around us, we shall begin to know what it is worth. Here we are. Let us stop making the worst of life, and begin to make the best of it.

CHAPTER XX.

SOME PRACTICAL ILLUSTRATIONS.

As I write these pages there come day by day accounts of the terrible battles between Turks and Russians in Bulgaria. A correspondent, writing of the food supplies of the Turkish army, says, "The fields are full of maize and pumpkins, and on these the soldiers are well nourished." No doubt, the tender Indian corn roasted by the camp fire, and the pumpkin, baked or boiled, afford a pure nourishment.

A lady of rank, who has visited the hospitals of Constantinople, gives her testimony to the speedy recovery of Turkish soldiers from severe wounds, with no inflammation. Another correspondent says—"They are fine fellows, and splendid patients." The pure blood formed by such a diet had speedily repaired the damages of war. An English drayman, full of beef and beer, would die of far slighter injuries.

Explorers have given the same testimony as to the healthful healing of wounds among the fruit-eating natives of the South Sea Islands. Wounds, from which a flesh-eating Englishman could never have recovered, were speedily healed.

Physiologists have experimented on the blood formed from a vegetable and an animal diet. That formed from vegetables resists putrefaction much longer than that formed from flesh. Vegetarians resist contagion. The pure blood formed from grains and fruits both resists and expels morbid matter.

A meal of flesh will not unfrequently cause a severe attack of diarrhoea; a meal of fruit will cure it. A pound of grapes or plums, or any kind of pulpy or sub-acid fruit, will cure constipation, acting as a gentle aperient. Living entirely on fruit for a single day will produce the best effects upon the system. Everybody knows that fruit will cure scurvy; but they do not

know that all kinds of blood-poisoning can be cured in the same fashion.

It is to be remembered that it is not enough to eat a quantity of fruit in addition to the usual meal of soup, fish, flesh, and fowl. It must take the place of them all. Bread, or the equivalents of bread, may commonly be eaten with fruit; but when we want the true medicinal effect of fruit, it is best to eat that only, and refrain from all other aliment until it has produced its proper effect.

The best way is the most natural. "Come into the garden, Maud," and pick the strawberries from the beds—pick and eat. They need no sugar or cream: they are better without it. Picking as we eat, or eating as we pick, we eat more slowly, enjoying each berry, or grape, or plum, or cherry, with every gustatory nerve fibre, and the answering stomach nerves respond by making the glands pour gastric juice into the stomach to digest the good things to come. And this gastric juice, observe, is quite different from that required to digest beef and mutton.

Then there is the pure garden air, full of the oxygen that plants give out in sunshine, and the healthy odour of flowers, and all the salutary influences of a natural life. O that every house might be surrounded by this sanitary rampart of a garden!

The people of towns are urged by a fine instinct to put fragrant plants in their windows. Nothing is nicer than a box of modest mignonette. Every sweet little flower gives out oxygen in its healthiest form of ozone, and the odours form a defence against encroaching malarial. Plant odours neutralise poisons. Plants absorb as food what is poison to man. It is in this way that the sunflower planted around a house keeps off, or prevents the action of, the malaria of intermittent fever—fever and ague; and that thin belts of trees of any kind are a barrier against infection.

Consumptive people go to the pine-tree regions of France, by Bordeaux, or to the Black Forest in Germany, that they may inhale the piney aroma. They make baths by steeping the pine leaves in water. The water cleanses; they breathe and, perhaps, absorb the turpentine. A distinguished Englishman has written a book on the healing virtues of tar water; and sailors find a cure for certain affections of the mucous membrane—rather, I should say, certain blood-poisonings which find an outlet that way—by chewing oakum, which is but another mode of the tar-water cure.

The principle is everywhere the same. The elements we get

most conveniently, and in the greatest abundance, in fruits, we find also in the odours of flowers, the exudations of trees, the juices of herbs. They are in the *tisanes* of the French peasantry, and the herb-drinks of our ancestors. The common people naturally prefer the herbalists to the other sorts of quacks who dose them with minerals. Whatever their ignorance, they know that tansy and pennyroyal are better than mercury and antimony.

But people who live as they ought never need medicine, other than they find mingled with the fruit they eat and the flowers they smell. Snuff up the delicious odour of a ripe apple—that is medicine, if you will. You eat what makes the odour, especially if you put no knife to it. The finest part of an apple, as of all similar fruits, is in or very near the skin, just as the finest parts of wheat are thrown away in the bran. Eat your apple, pear, or plum naturally—as you would if knives had not been invented.

In America, where apples are pared and cored by machinery, skins and cores are made into a sirop, or jelly, so rich and delicious, that this refuse is found to be more valuable than the rest of the fruit.

One of my earliest memories is of the family doctor prescribing baked or roasted apples as the first solid food for patients recovering from fevers. Had they taken the apples before the illness instead of after it, the probability is that he would never have been called.

CHAPTER XXI.

AIR AND EXERCISE.

THE central, fundamental, comprehensive condition of health is the purity and vitality of the blood. If that is living, all will live; if that is dying, all will die. If the blood is impure, so will be the body which it pervades and forms. Mingle poison with the blood and it must go wherever the blood goes. A glass of brandy taken into the stomach, or a whiff of tobacco smoke taken into the mouth, is in the brain in less than a minute. The nerve power works incessantly to expel noxious matters from the body. They are thrown out by millions of passages; but the power to expel is weakened by the very poisons that need to be expelled. Nature is equal to the

common accidents of life, but when we habitually, persistently increase her work, and at the same time diminish her power, she must break down at last. The bad matter, the poisons, gain upon the forces of life, and, after a long and painful struggle, they finally cease their action.

Though the blood, and the nerve power which depends upon the blood, be the central and principal thing, and the food which makes the blood of the highest importance, there are other things which aid in a very sensible and important way in that purification and invigoration of the body which make the cure of disease and the restoration of health.

I have shown the importance of air. Fifteen times a minute, day and night—sleeping or waking—we draw air into our lungs. It is evident that the quality and quantity of the air we inspire and expire must be of considerable importance. From the air we inhale we take oxygen. To the air we exhale we add carbonic acid, vapour of water, and certain impurities of the blood. Very foul odours sometimes pass off in the same breath. We tell by the breaths of people what they have been eating or drinking. The breath of a perfectly healthy man or animal is sweet and even fragrant. Cattle, living naturally in healthy pastures, have sweet breaths. Healthy children exhale delightful perfumes. On the other hand, the breath becomes foul, putrid, and disgusting in certain states of disease.

That we should live and breathe in a pure atmosphere at all times as a condition of health, I have made sufficiently apparent; but there is something more. We must leave our lungs free to fill themselves all through, and to their utmost capacity. Instead of binding and contracting the chest by stays and ligatures, we should give it all possible expansion. Every day, and several times a day, we should take some rapid exercise that will compel us to breathe. A short run is better than a long walk. No invalid should take exercise to weary, but only to quicken the circulation and deepen the breathing, and, if possible, open the pores of the skin. Skipping the rope, dancing, running, jumping, playing ball, or bean bags, are far better than sauntering walks or croquet. Even voluntary deep breathing by spells, several times a day, has great value. One of the benefits of the cold bath is that it compels us to fill our lungs. Swimming has the same use; so that lungs and skin are made to do their utmost.

In a bad atmosphere—an unventilated assemblage—we instinctively refrain, as much as possible, from breathing. We

keep out all we can of the blood-poisoning nastiness around us. We take one pint of air into our lungs instead of three, and when we come out into the fresh open air we try to make up for it by many deep breathings. Often the blood-poisoning of three hours in a crowded and ill-ventilated assembly—church or theatre—is thrown upon the mucous membrane of throat and lungs, and we have what is called a bad cold, which may last weeks, or months, or may end in chronic bronchitis or consumption. The managers of unventilated public places of any kind are responsible for much of disease and death.

Oxygen is truly a part of our diet. Air is as needful to us as water. One of the best prescriptions that can be given to an invalid is to get into as pure an atmosphere as he can find, and breathe as much of it as he can, night and day.

Exercise is good, because it compels us to breathe, and almost in proportion as it compels us. If we quicken the action of the heart by making a demand for more blood for brain and muscles, we quicken breathing in a corresponding degree. When the pulse is 60 a minute, we breathe 15 times; raise the pulse to 120, and we breathe 30 times a minute; or, if we are strong, we take in double the quantity, and make it up in that way. The faster and fuller the current of blood thrown into the lungs, the more air we require to supply it with oxygen.

Passive exercise is better than none. An open carriage gives us fresh air and some muscular movement, or, at least, a little shaking and jolting. Riding on horse or donkey combines passive and active exercise in the free air, and, for brain workers, is better than that which requires more exertion. But some of us have not a horse nor even a donkey at call: we must not use up our limited force in long walks; yet we need passive and active exercise. What is such an invalid to do?

First, before rising in the morning, let him rub himself briskly with his hands as far as he can reach, to get his skin—which is a network of arteries, veins, nerves, and glands—into a good condition for the morning bath.

Then the bath from beginning to end should be exercise, passive and active. It may be taken with sponge, towel, or even the hands—in any way that will get the water all over the body from head to feet, the more forcefully the better. Then comes the rubbing with large rough towels, which may be made a very invigorating exercise, compelling one to breathe fully, and bringing out a glow of re-action over the whole body.

If one is liable to chill—if there is weak re-active, or heat-making, or heat-distributing power, a little warm water to stand in will make a great difference: if that is not enough one can bathe in hot water, and then finish with a rinsing of cold, which will tone the skin and leave its glands in good condition.

A combination of active and passive exercise, better in some ways even than horse exercise, is to double one's fists and strike rapidly with each alternately, first all over the chest, then down the abdomen, and as far as one can reach, especially over the stomach, liver, spleen, bowels, and kidneys—all the soft parts of the body. The muscles are exercised in this physiological drumming lesson, and all the internal organs are shaken more effectively than in riding or running. The effect on the internal organs is very remarkable. It aids the action of the lungs; it strengthens the stomach, which, tender at first, comes to bear the hardest blows without pain; it excites the liver to healthy action; it overcomes the constipation caused by debility, torpor, or paralysis of the large intestines. I do not know a better kind of exercise, or one adapted to expedite the cure of a greater variety of disorders.

I have recommended the American physiological exercise of "Bean Bags," introduced by Dr. Dio Lewis.* Several bags of convenient size, eight by ten inches say, made of any kind of strong tissue, are filled two-thirds full of beans—or maize will do—two to four lbs. The exercise is to throw and catch these bags—a pleasant and healthful exercise for arms, chest, and the whole body. Gymnastic exercises expand the chest. One can see that in every music hall or circus. They do it indirectly by making it necessary to take more air into the lungs, and the chest expands itself, and the lungs enlarge to meet this requirement. Narrow chested children can have their chests enlarged by three or four inches in circumference, by a few months of progressive exercises, and so be saved from the danger of consumption. Boys grow broad chested in climbing trees, playing cricket, and many active exercises, while poor, pale girls are kept over their books and embroidery with contracted chests and tender lungs. Fathers and mothers who bring children into the world should see that they have the best opportunities for healthy development.

But, as the quantity of food should always be inside the measure of digestive power, so in all exercises there should be

* See *Herald of Health*, Vol. I., for particulars and illustration.

a good reserve of force. In every direction we must avoid the waste of life.

A good rule in regard to exercise, or labour of any kind, is to do no more in the day than can be fully recovered from by the night's repose. To wake tired is a sign of over-work.

CHAPTER XXII.

OF PSYCHIC FORCE.

It is not to be forgotten that in the life of man we have more than the matter of his body to deal with. The mind of man—his affections, passions, and faculties—must be taken into account. The will of a man is a great power. His love or his hate is a force which controls his body, and may prolong or shorten his life. Grief paralyses all the faculties,—it wrinkles the face, dulls the eyes, blanches the hair, produces a sudden physical transformation. Joy too great and sudden may kill; when not in excess, it is life-giving. Love and hope fill the soul, and therefore the body, with energy and power.

That the mind, or soul, or spirit, forms its organs and dependencies, seems more natural—more like the relations of cause and effect—than the reverse process; and there is abundant evidence to show that the spirit lives after the decay of the body. Such being the fact, susceptible of the clearest proof and absolute demonstration, not to be doubted by any one who has examined the evidence in a scientific spirit, the influence of mind on body, as well as of the body on the mind, becomes a matter of serious importance.

The body, being an instrument of the soul, and separable from it, should be made the best, and purest, and most effective instrument we can make it. That is, a pure, strong, healthy body is the best instrument of the soul; and an impure, weak, diseased body must be an ineffective instrument, marring the action and hindering the development and progress of the soul. The old saying, "a sound mind in a sound body," was worthy of philosophers. We have only to consider the effects of drunkenness, of gluttony, and the action of various drugs*

* We are unhappily too familiar with the effects of the use of alcohol. Four-fifths of the cost of police, magistrates, prisons, hospitals, and poor-houses comes from the use of this one article of manufacture and commerce.

upon the mental and moral faculties, to see the action of matter upon mind. We have also to consider the action of mind upon matter.

When the crew of the *Centurion*, Lord Anson's ship, already mentioned, came in sight of what was supposed to be a rich prize—a ship loaded with silver—numbers of sailors helplessly prostrated by scurvy sprang from their berths and went to man their guns. When a garrison in Flanders was worn down with fatigue, hunger, and disease, great numbers were restored to activity by a coloured liquid which the Prince of Orange distributed as a medicine of marvellous power. There is no end of the instances that could be cited of the influence of the mind upon the body, in either prostrating it with disease or restoring it to health.

Every physician succeeds in proportion as he can excite hope and confidence in his patients. "If it were not for hope the heart would break." It is not the medicine that cures, but the hope it gives of cure. Thus doctors of all schools have about the same measure of success, and quacks of no school do quite as well, and succeed just in the measure of the confidence they are able to inspire.

A strong hope or a strong will in the patient triumphs over disease, in spite of death and the doctor. I knew a colonel who fought bravely and was severely wounded in Mexico. He was taken with lock-jaw, and the surgeon advised him to prepare for death, as he could not live half-an-hour. But he had miscalculated the indomitable will-power of the man, who swore through his clenched teeth that he would live—and did. In all things a strong determined will is a great power.

We are conscious of the animating, life-giving forces of love and hope, as we are of the depressing, debilitating, life-destroying influences of jealousy and despair. A word or a look may give us life, and words and looks have hastened death. In a happy love, not only are the life forces distributed, but they are increased. The effect of separation and isolation is to depress,

It is a Government monopoly, so that not a drop can be legally made, imported, or sold without a license from the authorities, and it pays an immense revenue. But never was any tax so heavy upon the people, in cost, demoralisation, and misery to those who drink it, and in taxes, rates, calls for charity, and many annoyances to those who refrain. We read of oppressive taxation in other countries; but nothing can be worse than to draw a revenue from the causes of demoralisation, disease, poverty, misery, and murder.

to weaken all. In union is strength—strength to each one, as well as the united strength of all. The bundle of sticks is not a good illustration. In every real union there is far more than the aggregate of individual forces. In the arithmetic of matter two and two make four, but spiritual arithmetic has another multiplication table.

It is because man is a social being, dependent upon companionship for both physical and spiritual life, that solitary confinement is the most terrible of punishments—so terrible in its sufferings and in its effects that it is now but sparingly used, and only for the worst offenders.

The wise physician—and every man, it is said, is either a physician or a fool at forty—will never forget the influence of the mind upon health. Emotion of the mind will take away appetite, suspend digestion, cause vomiting, produce an overflow of bile, a severe constipation or sudden diarrhoea, and greatly quicken or entirely stop the action of the heart. What shows the action of the mind on the body more prettily than a blush—the sudden distention of myriads of capillaries to receive red blood? or the sudden pallor, caused by constricting arteries, that comes with a different emotion?

The mind causes heat or cold, muscular action or paralysis, and may modify every function and affect every organ of the body. For example, the sight or thought of food causes a flow of saliva—the mouth waters, we say, for some food we are fond of. Maternal love produces a flow of milk from the mammary glands, and another emotion acts powerfully upon the generative organs. It is evident that there must be unhealthy books, as well as depressing or demoralising society. We should choose our books as we do our companions, for the good and the happiness they bring us. Charity may require that we should give the comfort and help of our society to the unhappy; but unhappy books may be safely let alone.

It is evident that we should never lose sight of the mental and moral conditions of health and cure. Disease, in a multitude of cases, has its origin in mental and moral conditions. People are made ill, and ill unto death, by sorrow, trouble, jealousy, the loss of the vivifying influences of hope and love, and all the strengthening sentiments and passions. As there is no medicine like love and hope, there is no poison like grief and despair. Men and women really die broken-hearted—suddenly, at times, but much oftener of a slow decline.

Therefore people want change of place, change of condition.

No doubt we may "change the place and keep the pain;" but in many cases we soften pain by removing from objects associated with our griefs. New interests are awakened. The soul is soothed by new affections and new hopes. And a solid faith in the Supreme and Infinite Benevolence, Wisdom, and Power is a source of consolation and hope, and a condition of health and peace.

But there is something more to be considered. Our minds act upon our bodies—that is evident enough. But our minds act upon the minds and bodies of others—indirectly, through speech and action; directly, by a subtle influence, or nerve aura, which seems to form a sphere about us, and which is in some way subject to our will.

The bird flutters helplessly under the fascination of the serpent, and becomes his prey. The mouse that never saw a cat is paralysed in its presence. A man, seized by a lion or tiger, falls into a dreamy half-consciousness—a sort of trance, painless and helpless. Those who make a study of life find analogous facts in our experience with our fellow-men. There are women whose fascinations few men can resist; and there are men whom women find very dangerous. There is no doubt that some men can will other men to trust and women to love them.

This power of one mind over others is shown in many ways. Political leaders do not control men by logic. Military leaders have what is called magnetic power. When many wills combine, the force becomes overwhelming. Under a common impulse we have assaults of victorious armies, the madness of mobs, the epidemic terror of panics. This power is sometimes very dangerous. A strong judge takes complete possession of a jury; or judge and jury may both be overwhelmed by a popular excitement.

The influence which may be produced by the will of one person upon the mind and body of another acquired, a century ago, the name of Mesmerism. It has also been called Animal Magnetism. In some forms, as exhibited in public, it is known as Electro-Biology. Fascination is as good a name as any, but none of these names carry any explanation. The fact, however, is beyond question that the will of one person can so act upon another as to relieve pain, produce sleep, and even insensibility, so that surgical operations can be performed as under the influence of chloroform. Somnambulism or clairvoyance may be induced, and the mind as well as the body brought under the influence of the operator.

It is evident that such a power may be used for the relief of suffering and the cure of disease. It is used every day unconsciously; but it is better that it should be used intelligently, and that we should know that we have the power to help our friends by active sympathy. Fervent prayer unconsciously takes with it this form of sympathetic action. So does the ardour of love, and the warmth of charity. The influx of personal "magnetism" comes with the "laying on of hands." It flows from the finger tips. It permeates brain, spinal cord, and still more, perhaps, the great centres of the nerves of organic life. Thus, when I have found a patient hot with fever, I have laid my hand upon the pit of the stomach, and in a few moments found the patient's skin cool and moist, the pulse slower and softer, with a sensible relief to the whole body. Many persons have the power to give speedy relief to the pain and inflammation of a sprain or of neuralgia. These effects are not imaginary, for they come often without expectation; but if we choose to call such things imaginary, they are not by that word explained. Whatever theories we adopt, and whatever names we give, it is certain that the strong can help the weak, and that the healthy can help to cure the sick. We who are strong diffuse our strength. We who are weak lay hold of the strong. Thus we bear one another's burthens; and not unseldom do we hold our dying friends in life until they beg us to let them go in peace—into "the peace that passeth all understanding."

The reader of this chapter may think that we have taken him beyond the scope and province of the diet cure. Not so. It is they who are in the purest health who have most of this nerve power, or psychic force. The spiritual rests upon the material. The finer our nervous systems, the more life we can give to all we love and all we wish to help.

CHAPTER XXIII.

NATIONAL HEALTH AND WEALTH.

THESE pages are written in a time of great trouble. There is a wide spread and terrible famine in India. A murderous war is raging east and west of the Black Sea, desolating some of the finest regions of the earth. Germany has not recovered from the disasters brought upon her by her invasion and spoliation

of France. America is still suffering from the collapse of industry produced by its four years of civil war. England, a manufacturing and commercial country, suffers from the misfortunes of every country with which she has commercial relations. Those who have purchased cannot pay; those who have borrowed money cannot pay interest; the demand for cotton, woollen, and iron wares is diminished. Millions of men are made into soldiers who produce nothing, and must be clothed and fed.

With this diminished demand for England's manufactures comes an increasing competition. The iron workers of Belgium can sell their wares in Sheffield. Germany and France are pushing their manufactures into all the markets of the world. America has immense quantities of coal and iron.

In the midst of this decline of trade and sharp competition for what yet exists, the British workman is struggling for higher wages and less hours of labour—wasting months of time, and losing millions of money, in strikes; doing what can be done in this way—contest instead of co-operation—to complete the ruin of English manufactures and commerce.

And one thing is evident. If the workmen of France, Belgium, and Germany can live on half the wages demanded by Englishmen, the manufacturers of those countries have a great advantage in the competition of trade, and it is no wonder that English shops are filled with French, Belgian, and German articles.

"Waste makes want," and England is full of the wildest extravagance of waste. There is the waste of time—great numbers of workmen losing on an average two days in every week, which they spend in getting drunk and then getting sober. Much time is also wasted in the sickness brought on by these weekly orgies. All the money spent on drink and smoke is simply wasted. They yield not one atom of force: life is wasted in the struggle against their poisoning influence.

At a meeting of working-men in London to discuss the question of wages, the chairman, an M.P., and one of the largest employers in England, said that in a certain department of his works men had earned £4 a-week, and could easily have owned the houses they lived in, and laid by a handsome sum besides; but they had spent every penny, and at the first reverse were in want. A lady who lives in one of the largest iron towns in England, tells me that in good times the men pay the most extravagant prices for luxuries she would not

think of buying, and then when work fails come to her for help. In this same town, within a narrow space are a hundred public-houses crammed night and day, and a temperance hall with courses of excellent lectures very sparsely attended.

All the land which produces intoxicants, and all the labour expended upon it, all the capital invested, and the cost of distribution, are simply wasted. The working man, who earns it all, has nothing to show for his expenditure but his disease and demoralisation.

If the working people of England would refrain from drink and tobacco, and live on such a diet as I have recommended in "How to Live on Sixpence a-Day," they could have an abundance of all the *necessaries* of life, and many of its comforts. They could save all this enormous waste of time, money, and health. They could combine with their employers to meet the competition of foreign artizans. They could secure for their own country a solid prosperity and abounding riches. Every centre of industry could be made no less a city of health. And it is utterly vain to build sanitary dwellings for the rich or the poor, unless they will also live sanitary lives. Make men and women what they ought to be, and they will soon reform their external conditions.

If people would refrain from unnecessary food, and drink, and smoke, they could buy much more of necessary and comfortable clothing, furniture, books, and so build up useful manufactures and commerce. When we eat and drink a sovereign, a large part of it is in many cases worse than wasted; when we buy with it articles that last for months or years we get value for our money, and a prolonged enjoyment. If we save sixpences and shillings until we can buy a bit of land, we may thereby provide a dwelling and food for unnumbered generations. It is pitiful to think of the great mass of the working people of England consuming needlessly day by day in harmful indulgences, what would secure comfort and health to them and their children's children.

Every habitual smoker, for example, turns many acres into smoke, or burns down several nice cottages, only to poison his own blood, pollute the atmosphere, and make himself a nuisance to all who have not acquired the same appetite. Smoking costs from £5 to £20 a-year. One who smokes twenty years wastes from £100 to £400, without counting interest. The land and labour wasted on tobacco would feed and clothe many millions.

Whose is the fault? Surely it must lie somewhere. The rich in former years, if not so much at present, have set a bad example to the poor, by loading their tables with luxuries, and drinking to such excess that a common saying was, "drunk as a lord." The clergy in those days were as gluttonous eaters and as deep drinkers as the squires and nobles. The caricatures of a century ago almost uniformly represent the parson with a big belly and a red nose. Physicians to this day—the greater number—prescribe what they call a "generous diet," and insist upon the virtues of beef and brandy, or "order" wines and malt liquors; while nearly the whole medical press is quoted in public-house windows in praise of a particular brand of whisky.

What can we expect but that people should follow the examples and teachings of the higher classes and the learned professions? Fashions go down from higher to lower, and are continued below long after they have ceased above. Unfortunately, people are more likely to persist in bad habits than to adopt good ones.

The need of reform is evident, and it is coming to be felt now by people of all classes. Parliament has provided for universal education, so that every one may read; but the kind of newspapers and books that are read must depend upon the law of supply and demand. The health reform is making steady progress, and the question of diet, so far as drinks are concerned, interests multitudes of people. The question of food will be found not less important, in some of its aspects, than that of drink. It is true that a man who eats a pound of bacon or sausages may not be excited thereby to give his wife a black eye or to kick his children; but the man who destroys his health and shortens his life by gluttony may inflict upon his family, as upon himself, irreparable injury.

There is wrong and mischief in all waste of life. A man should live so as to keep himself at his best, and with a true economy. To eat more food, or more costly food, than is needful, is worse for the individual than to drop money into the sea. It is a waste of labour and a waste of life.

The way to wealth is to diminish expenditure, and especially to hinder waste. What we eat and drink beyond the requirements of health is utter waste; and the amount of this waste, which can be counted in money, is very great—so great that it affects the national prosperity. The revenue gathered from the sale of alcohol and tobacco could be easily trebled by their

disuse. What could be saved in food in a few years would pay off the national debt. A pure and natural diet would, I believe, not only give health, but wealth, to any individual or any community; diminishing expenditure, and at the same time increasing productive power.

I can imagine some captain of industry establishing an agricultural colony or a manufacturing village upon this basis of a pure and healthy diet; with fields and gardens for the supply of bread, fruit, vegetables. No beer, no spirits, no tobacco, no coffee, no tea. No police, no doctor, no drugs. No drunkards, no rowdies, no loafers, no prostitutes. Sober men, virtuous women, bright and happy children. Health, wealth, peace, comfort, intelligence, pleasant recreations, refined enjoyments. Is it impossible to have such a community? It is just as possible as to have such a family. It is a perfectly practicable Utopia, as easily to be formed as a West End Club. It needs only a little intelligence and good will. Any man who reads the sixth part of my "Human Physiology" can see the means for its accomplishment. In America colonies are organised and townships settled more or less on this principle. In England any great landlord could establish such a colony or such a village on his estate.

What a beautiful thing it would be to plant colonies of this kind on any of the lines of railway which radiate from the metropolis, for the culture of nice fruits and vegetables, with bees, fowls, and such industries as are carried on in the cottages of Switzerland and the Tyrol. Why need English shops be filled with wood carvings from abroad, with toys from Paris or Nuremburg, with porcelain of Sevres? Why the very groceries and provision shops furnished with French eggs, French honey, French prunes, French sardines?

There is no need to go to New Zealand. English land is lying waste, English life is no less wasted. The principles I have laid down in this book, and in all I have written on sanitary and social science, if carried out, would multiply the wealth of England—of the United Kingdom—and give to its people immeasurable health, prosperity, real happiness, and true glory.

CHAPTER XXIV.

PERSONAL ADVICE.

I HAVE written all my books on health with the intention of enabling their readers to avoid disease, or, if they have it, to cure themselves. Every man who has a good constitution to begin with can keep himself in health. If he has had the misfortune to inherit germs of disease, or tendencies to disease, as must be the case with vast numbers, I have given him in this and my other works, especially in "Esoteric Anthropology," the best methods of cure. He can be his own physician. Twenty-four years ago I wrote, in the preface to the first American edition of that book:—

"I write, not to get consultations, but to prevent their necessity; not to attract patients, but to keep them away, and to enable them to get health without my further care. I wish to make this book so full, so clear, so thorough and complete, that every one may understand the structure and functions of his system, the conditions of health, the causes of disease, and all the modes and processes of cure. It is a book for the prevention of disease, for the preservation of health, and, so far as that end can be attained, for its restoration. Having faithfully and carefully written it, I have performed a part of my duty. I have done the work at once and for all, instead of wasting my life in a thousand individual efforts. Henceforth, when a patient consults me, I shall say with honest old Abernethy, 'Read my book!' I wish as far as possible to retire from practice—to devote my remaining years to the more congenial pursuits of education, literature, and social science. But, before I could do this, I felt that I had a great duty to perform. The following pages are the result of my endeavour to perform that duty."

"*L'homme propose.*" Little did I imagine that, a few years after, a wild storm of war would tear me up by the roots, and send me to another hemisphere. I came to England in 1861, and engaged in literary and scientific work. In 1864 I published "FORTY YEARS OF AMERICAN LIFE;" my name will be found in the list of contributors to *Chambers' Encyclopædia*; I was for ten years a correspondent of American journals, writing from London, Paris, Brussels, Metz, Vienna, etc. But one day my destiny overtook me. I wrote "HOW TO LIVE ON SIXPENCE

A-DAY." That led to the publication of "A WOMAN'S WORK IN WATER CURE AND SANITARY EDUCATION," by Mrs. Nichols. Once on this old path in this old country, I wrote "HUMAN PHYSIOLOGY THE BASIS OF SANITARY AND SOCIAL SCIENCE," and then "Behaviour," now published with the less misleading title of "SOCIAL LIFE," and revised, and to some extent rewrote, my "ESOTERIC ANTHROPOLOGY," and published an English edition. Then I published two volumes of *The Herald of Health* (July, 1875, to July, 1877), and established a Hygienic Institute or Sanitary Depot in the heart of London, with numerous provincial branches. Giving up my literary and journalistic work (at a pecuniary sacrifice of £400 a-year), I devoted myself entirely to my present work—writing, editing, publishing, lecturing, inventing foods, baths, etc., and doing all I have been able to do to promote general and individual sanitary reform. For this I have now written "THE DIET CURE;" for this I have promised to write "THE BEACON LIGHT;" for this I hope to be able still to use the "living voice" in public lectures, because personal instruction, I am well aware, has its own peculiar power, and we come to the needs of people, and supply their demands, in speaking as we can never do in writing.

But now, as always, I wish to do all I can for those whom, in this world, I can never see. A book which costs a shilling or five shillings can be sent to the remotest corner of the United Kingdom or the world. My books, I am happy to know, are well read in Africa, in India, in Australia, in New Zealand, in British Columbia, in the United States and Canada, and so on round the world. I am glad to get letters about them from Egypt, Constantinople, Bombay, Melbourne, Christchurch, and Fiji. It has been a lesson in geography to follow their wanderings, and a comfort to think that so many people may be by reading them live better and longer in so many climes. People so far away can hardly have personal consultations, even by post. They must learn to take care of themselves, like the Fiji missionary who writes:—"When my wife was confined I had to be her doctor, monthly nurse, and everything else, and I followed the plan I thought best, and that was the one taught in your 'Esoteric Anthropology.' All went well, and I have spoken of it to my friends." He adds:—"Mrs. Nichols' writings are very valuable, particularly in a place like Fiji."

Those who are in England can write; those who are near can have personal consultations; some may have personal care

in treatment, but how few! And why should any have the trouble and the cost, when they can learn in the books we have written everything we could teach them and all they need to know? Why spend pounds, when they need spend but one or a few shillings? Assuredly I had much rather have five shillings for books, that may do good to many and for years to come, than a guinea fee for personal advice. No doubt there may be cases where such advice is needed. There are all sorts of individual peculiarities—idiosyncrasies; but nine in ten, yes, ninety-nine in a hundred, can get all the advice they need in books—in this one shilling's worth, indeed, may be found the cure for a great majority of human ills.

Even examinations are very rarely needful. A diagnosis is useful for life insurance. It may be convenient, in a few cases, to know the condition of the heart, or lungs, or other internal organs, but these are exceptions; and the general rule is that, whatever the nature of the disease, the simple conditions of health—pure air, cleanliness, and natural food—are also the means of cure.

Breathe pure air day and night, and plenty of it, as a rule, keeping the mouth shut, sleeping and waking, and carefully avoiding damp, mould, gases from drains, air affected with the breaths and emanations of other people, and every sort of malaria.

Wash the entire body every day either with cold water or finishing with cold (and hot followed with cold is better than tepid), followed by vigorous friction of the whole body.

Live on bread and its equivalents, fruit and its substitutes in nice vegetables, with small additions, if any, of milk, butter (or other oil), mild cheese, or eggs, in all not exceeding twelve ounces of solid dry food a-day. In dyspepsia it is necessary to begin with much less, and very carefully increase. Two meals a-day are better in most cases than three; in some it is best to eat only once in twenty-four hours. No dyspeptic should eat within five hours of retiring to rest.

The superiority of brown bread to white is now understood by all intelligent people, and it is only in rare cases of intestinal irritability that white is needful. The bread also should be genuine—made of whole wheat meal, and not of flour and bran. Unfermented bread is best. The best porridge for dyspeptics and invalids generally is made of the "Food of Health," or in severe constipation the "Wheaten Groats." Oatmeal is also very nourishing and good. The milk of healthy

cows is very excellent food ; but when the digestive power is low it must be sipped slowly, and in some cases mingled with bread or rice, or diluted with barley water, to prevent the formation of solid curd in the stomach.

Drink the softest, purest water you can get. It is better to take filtered rain water or distilled water than that which is hard and of doubtful purity. But no drink is needed except when there is thirst ; and if we abstain as we ought from salt, heating condiments, and an excess of sugar, and eat fresh fruits and vegetables, we shall seldom have need of drink. Hot drinks at meals weaken the stomach and retard digestion. It is better to eat our food and wait for thirst.

We should wear clothing enough for comfort, so worn as not to impede respiration or the free passing off of insensible perspirations.

And we should take sufficient exercise, avoid fatigue, and get abundant rest.

Alternate work, recreation, and sleep. We need employment for muscles and mind. To have a sound mind in a sound body there must be for both their natural life and action and enjoyment. The health of the soul is in the virtues of faith, hope, and charity. Vigour of body and mind is the reward of temperance and chastity.

The requirements of morality and religion are in perfect agreement with the teachings of Human Physiology.

I have given here, and in all my hygienic works, the best advice I can give for the preservation of health and the cure of disease. Ninety-nine persons in a hundred need no other. No doubt there may be special cases requiring special treatment ; but they are very rare. We (Mrs. Nichols and I) have done what we could for such, both in advice and treatment ; but it is no longer in our power to reply to twenty or thirty letters a-day, the most of them not containing even a stamp for postage. We are obliged to require that in future every letter asking advice shall contain, if not the usual fee, *something*. All private and professional letters should be addressed to our London residence. A few select patients can, by previous application, have the advantages of Malvern Air, Water, Hydropathic Treatment, and the Diet Cure, at our Country House, Aldwyn Tower, Great Malvern.



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